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A REPORT OF THE NURSE CAREER-PATTERN STUDY

# Registered Nurses Fifteen Years After Graduation

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# dedication

This report is fondly dedicated to all the nurses who so faithfully completed questionnaires over the years of the study.

# contents

**Introduction** . . . . . 1
Background of the Study . . . . . 1
Purposes of the Study . . . . . 3
Plan of the Study . . . . . 4
Assumptions regarding the Study . . . . . 4
Response Rates . . . . . 5
History of the Study . . . . . 5
**Chapter 1. Biographical Characteristics of Respondents** . . . . . 7
Characteristics of the Married Women . . . . . 9
**Chapter 2. Labor Force Participation** . . . . . 17
**Chapter 3. Employer and Position in Nursing** . . . . . 37
**Chapter 4. Education since Graduation** . . . . . 45
**Chapter 5. Geographic Mobility** . . . . . 51
**Chapter 6. Professionalism** . . . . . 59
**Chapter 7. Discussion** . . . . . 69
**Appendix:** Form Letters and Questionnaire for Fifteen Years after Graduation . . . . . 77

# tables


1. Marital Status, by Time after Graduation and Type of Program . . . 8
2. Racial Identification of Group Responding Fifteen Years after Graduation and All Graduates in the Study, by Type of Program . 8
3. Age Fifteen Years after Graduation, by Type of Program . . . . . 9
4. Number of Children of Married and Formerly Married Participants, by Time after Graduation and Type of Program . . . . . 10
5. Annual Family Income at Fifteen Years after Graduation, by Type of Program . . . . . 10
6. Wage-Earner Status at Fifteen Years after Graduation, by Type of Program . . . . . 11
7. When Married for Married Women at Fifteen Years after Graduation, by Type of Program . . . . . 11
8. When Married and Age of Married Women Fifteen Years after Graduation, by Type of Program . . . . . 12
9. When Married and Number of Children of Married Women Fifteen Years after Graduation, by Type of Program . . . . . 12
10. When Married and Age of Youngest or Only Child of Married Women at Fifteen Years after Graduation, by Type of Program . . 13
11. Husband's Occupation for Married Women, by Time after Graduation and Type of Program . . . . . 14
12. Husband's Social Index Classification for Married Women, by Time after Graduation and Type of Program . . . . . 15
13. Years of Full- or Part-Time Work in Nursing during Fifteen Years since Graduation, by Type of Program . . . . . 17
14. Work Status, by Time after Graduation and Type of Program . . . 18
15. Selected Characteristics of Those Employed in Non-Nursing Work Fifteen Years after Graduation Compared with Cohort . . . . . 19

16. Work and Marital Status of Women, by Time after Graduation and Type of Program ..... 20
17. Reasons for Not Working or Not Working in Nursing Ten and Fifteen Years after Graduation ..... 21
18. Reasons of Married Women for Not Working Fifteen Years after Graduation, by Type of Program ..... 22
19. Work Status of Women, by Age at Entrance into Nursing Program, Time after Graduation, and Type of Program ..... 23
20. Years of Full- or Part-Time Work for Married Women during the Fifteen Years since Graduation, by When Married and Type of Program ..... 24
21. Work Status of Married Women, by Number of Children at Five, Ten, and Fifteen Years after Graduation and Type of Program .. 25
22. Work Status of Married Women, by Age of Youngest or Only Child at Ten and Fifteen Years after Graduation and Type of Program . 26
23. Work Status of Married Women with Two or More Children at Ten and Fifteen Years after Graduation, by Age of Youngest Child and Type of Program ..... 26
24. Work Status of Married Women with Children at Ten and Fifteen Years after Graduation, by Type of Program ..... 28
25. Work Status of Married Women at Five, Ten, and Fifteen Years after Graduation by Husband's Social Index Position and Type of Program ..... 29
26. Annual Family Income of Cohort, Married Women, and Married and Formerly Married Women Working Full Time at Fifteen Years after Graduation, by Type of Program ..... 30
27. Wage-Earner Status of Married and Formerly Married Women Working Full Time at Fifteen Years After Graduation, by Type of Program ..... 31
28. Child Care Provisions of Working Mothers, by Type of Program . 31
29. Year Last Looked for Nursing Employment, by Type of Program 32
30. Availability of Nursing Employment and Job Desired When Work was Sought at Ten and Fifteen Years after Graduation, by Type of Program ..... 33
31. Ease of Finding Desired Job and Year Last Looked for Employment, by Type of Program ..... 34
32. Reasons Why Desired Job Was Difficult to Find at Ten and Fifteen Years after Graduation, by Type of Program ..... 34
33. Number of Nursing Employers during Fifteen years since Graduation, by Type of Program ..... 37
34. Number of Nursing Employers of Women, by Years Worked since Graduation and Type of Program ..... 38
35. Number of Nursing Employers of Women, by Marital Status and Years Worked at Fifteen Years since Graduation and Type of Program ..... 39

36. Number of Employers during Fifteen Years since Graduation of Women Who Worked as Registered Nurses in One State, by Type of Program ..... 39
37. Employer of Those Working in Nursing, by Time after Graduation and Type of Program ..... 40
38. Nursing Position, by Time after Graduation and Type of Program 42
39. Clinical Field, Employer, and Position of Women Working Full or Part Time at Fifteen Years after Graduation, by Type of Program 43
40. Number of Employers during Fifteen Years since Graduation of Women, by Nursing Position and Type of Program ..... 44
41. Completion of and Enrollment for Next Higher Degree at Five, Ten, and Fifteen Years after Graduation, by Type of Original Nursing Program ..... 46
42. Methods of Financing Education by Women Who Completed Next Higher Degree, by Type of Original Nursing Program ..... 47
43. Completion of Next Higher Degree and Marital Status of Women at Fifteen Years after Graduation, by Type of Original Nursing Program ..... 47
44. Work Status of Married Women at Fifteen Years after Graduation, by Completion of Next Higher Degree and by Type of Original Nursing Program ..... 48
45. Clinical Field, Employer, and Position of Women, by Completion of Next Higher Degree and Type of Original Nursing Program .. 49
46. Number and Location of States in Which Employed during Fifteen Years since Graduation, by Type of Program ..... 52
47. Number of Employers and Number of States in Which Women Were Employed as Nurses during the Fifteen Years since Graduation, by Type of Program ..... 54
48. Number of Residential Changes and Changes of Area during Fifteen Years since Graduation, by Type of Program ..... 55
49. Comparisons of State Addresses of Residence at Ten and Fifteen Years after Graduation, of Nursing School and Residence Fifteen Years after Graduation, and of Nursing School and RN Licensure, by Type of Program ..... 56
50. State Address of Residence at Ten and Fifteen Years after Graduation and Marital Status of Women at Fifteen Years after Graduation, by Type of Program ..... 57
51. Work Status of Married Women Fifteen Years after Graduation, by Number of Residence Changes and Type of Program ..... 57
51a. Work Status of Married Women Fifteen Years after Graduation, by Type of Residence Change and Type of Program ..... 57
52. Years of Full- or Part-Time Work of Married Women during Fifteen Years since Graduation, by Number of Residence Changes and Type of Program ..... 58

52a. Years of Full- or Part-Time Work of Married Women during Fifteen Years since Graduation, by Type of Residence Change and Type of Program ..... 58
53. Fulfillment of Three Expectations of Nursing Work, by Time After Graduation and Type of Program ..... 60
54. RN Licensure, by Time after Graduation and Type of Program . 61
55. Selected Characteristics of Those Not Licensed as Registered Nurses Fifteen Years after Graduation as Compared with Cohort 62
56. Organizational Membership at Ten and Fifteen Years after Graduation, by Type of Program ..... 62
57. Aspiration for Fifteen Years after Graduation at Entrance and Graduation and Actual Employer at Fifteen Years after Graduation, by Type of Program ..... 64
58. Aspiration for Fifteen Years after Graduation at Entrance and Graduation and Actual Position at Fifteen Years after Graduation, by Type of Program ..... 65
59. Choice of Nursing and Type of Program if Starting Education Again, by Type of Program ..... 66

# introduction

This report of the Nurse Career-Pattern Study spans the years 1962 through 1981, years of social, economic, and political change in the United States. This was also a time of change and reevaluation of the educational process in general and of the education of health professionals in particular.

Probably the most apparent change in nursing education occurred in the continuing decline of hospital-based educational programs and the increase in the number of nursing programs in institutions of higher education.

## BACKGROUND OF THE STUDY

During the early sixties, the "shortage" of nurses was considered a paramount problem. Much pressure was exerted on the nursing profession to produce more graduates and to keep nurses in the work force after graduation. During the same time, there was a rapid expansion of associate degree programs in nursing, a slight increase in baccalaureate programs, and a decline in the number of diploma programs.[1]

As of October 1962, the distribution of registered nurse programs according to type of program was: 7 percent associate degree, 77 percent diploma, and 16 percent baccalaureate. As of October 1981 the distribution was: 51 percent associate degree, 21 percent diploma, and 28 percent baccalaureate.[2]

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[1]National League for Nursing, *Nursing Data Book*, Pub. No. 19-1751, (New York; NLN, 1978), p. 1.

[2]National League for Nursing; *State-Approved Schools of Nursing—R.N. 1963*, Pub. No. 19-1050; (New York; NLN, 1963), p.86; and National League for Nursing, *State-Approved School of Nursing—RN 1982*, Pub. No. 19-1900 (New York; NLN, 1982), p.78.

Questions of recruitment into nursing, supply, demand, and utilization of nursing manpower skills were compounded by the question of whether there were differences among graduates of the three types of programs preparing for registered nurse licensure. The National League for Nursing's official statement of 1960 described characteristics and goals of four nursing education programs.[3] Although the goals of the practical nursing program were easily distinguished from the goals of the three types of programs preparing for registered nurse licensure, and although baccalaureate programs in nursing alone were recognized as preparation for admission to graduate study in nursing and beginning practice in public health, there was confusion among educators, employers, and potential students regarding the differences among the three registered nurse programs.

It was against this background that certain persistent questions were being raised for which there were no evaluative or experiential responses. In terms of biographical characteristics, to what extent are the students who attend nursing programs similar or different? Are the nursing programs drawing from the same population of potential students? What are the biographical characteristics of entering students?[4]

Since many nursing positions were unfilled at all levels and in most areas of practice, a great many questions about nurses after graduation were unanswered. What are the career plans of nursing students? Are these plans related to the type of program from which students graduate? What are the occupational roles as described by position, clinical area, and employer after graduation? Are positions after graduation the same or different depending upon the basic nursing program attended? Do occupational roles change? At what point after graduation do occupational roles change? What are the describable career patterns of nurses after graduation? Do registered nurses leave the nursing labor force? If so, when and why? Do they find employment in other non-nursing areas or do they simply stop working? Having once left nursing, do nurses return to nursing work?

In an effort to understand and describe the students entering basic nursing programs and graduates' contributions to nursing, it was natural to raise questions about those who do not graduate. For many years, when diploma programs were predominant, about a third of all students withdrew before graduation.[5] As nursing education moved into junior and senior colleges, withdrawal rates could not be accurately predicted. This added to the unanswered questions: What are the withdrawal rates for the different types of nursing programs? Are any of the characteristics describing students related to graduation or withdrawal? If so, which ones? Do descriptions of graduation and withdrawal rates differ by type of program?[6]

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[3]"Opportunities for Education in Nursing—A Statement on Nursing Education," *Nursing Outlook*, September 1960, pp. 482-486.

[4]Lucille Knopf, *From Student to RN*, Pub. No. (NIH) 72-130 (Bethesda, MD: Department of Health, Education, and Welfare, 1972), pp. 70-76.

[5]Ella A. Taylor, *Withdrawal of Students* (New York: National League for Nursing Education, 1951).

[6]Lucille Knopf, *Graduation and Withdrawal from RN Programs*, Pub. No. (HRA) 76-17 (Bethesda, MD: Department of Health, Education, and Welfare, 1975), pp. 83-92.

This, then, is the context in which the Nurse Career-Pattern Study, a long-term longitudinal study of participants from the time they entered nursing school through their years as nurses, was launched.

The study stared in the fall of 1962 with all incoming students in a sample of practical nurse, diploma, and baccalaureate programs, and almost all of the associate degree programs then existing. This report concerns only the registered nurse group. Of 11,439 entering students, 2,283 from 61 associate degree programs, 5,456 from 130 diploma programs; and 3,700 from 68 baccalaureate programs began the study. Of this group 6,893 graduated, and this is the cohort which has been surveyed after graduation.

## PURPOSES OF THE STUDY

The broad purposes of the study include: describing the characteristics of students entering the different nursing education programs, describing graduates from participating programs, analyzing factors related to graduation or withdrawal from these nursing programs, describing contributions to the nursing labor force at specified time intervals after graduation, and analyzing factors related to labor force behavior. All descriptions and analyses were planned to be reported by type of nursing program. Specifically the study describes:

*Relationship of type of nursing education to subsequent employment:*

Theoretically all three registered nurse programs prepare for beginning practice in institutional nursing. The baccalaureate program alone prepares for graduate study and practice in all health care settings. By surveying respondents at intervals after graduation it is possible to describe not only work status in nursing, but also position, clinical field, and type of employer and thus build a picture at specific intervals after graduation of the careers of nurses educated in the three programs.

*Relationship of type of nursing program to occupational goals:*

Within the field of nursing there are many varied areas of practice. The aspirations of participants as to position in nursing prior to graduation and, then, later in their careers, actual positions are described, so that an assessment of career progession can be obtained. Many positions in nursing require advanced educational preparation. Monitoring education after completion of the basic program can contribute to determining the influence of additional preparation on nurses' careers.

*Relationship of marriage and family responsibility to nurses' work life:*

The majority of nurses are women, most of whom marry and have children. Data describing the characteristics of spouse and number of children from

more than one interval after graduation provide a basis for evaluating the impact of marriage and family on nurses' work life and careers.

*Relationship of students' characteristics to graduation or withdrawal from nursing school:*

A proportion of students who enter any postsecondary educational program withdraw before completing it. For many reasons, notably the often-felt need to produce more graduates as well as the sequential nature and cost of nursing education, withdrawal of students has been viewed as a problem by nursing schools. This study supplies descriptive cohort data on those who graduated and those who withdrew from nursing school.

## PLAN OF THE STUDY

The longitudinal method was assessed as potentially yielding the most sound picture of nurses and their careers. By surveying the same individuals and by monitoring designated variables over time, the longitudinal method both provides a description of events that are current to the respondent and allows the possibility of inferring causality. The major strength of a longitudinal design is that use of the same cohort at each time interval avoids reliance upon the assumption of comparability among different groups.[7] One of the main disadvantages of the longitudinal method is the time involved in gathering a significant body of cohort data. Another pitfall is, of course, the possibility of diminishing returns over time.

Ambitious as it was, the longitudinal method was chosen for the Career-Pattern Study, and the study was planned to survey the same cohort by mailed questionnaire at entrance to nursing school, at graduation, and at one, five, ten, and fifteen years after graduation. These periodic surveys were planned to describe the participants at specific times in their lives and to provide accumulated data for analysis over the span of the study, not only to increase knowledge but also to lead to hypothesis generation.

Although the sampling unit of the study was the nursing program, the study describes individuals and is not a comparative study of participating programs.

## ASSUMPTIONS REGARDING THE STUDY

The undertaking of a long-term, broad-scope study such as the Career-Pattern Study implies many assumptions regarding sampling, methodology,

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[7]David J. Fox, *Fundamentals of Research in Nursing* (New York; Appleton-Century-Crofts, 1970), p. 195.

instruments, and data. The main assumptions underlying the Career-Pattern Study can be stated as follows:

- The participants were representative of the nursing student population of the time.
- The questions asked would supply the information desired.
- The instruments designed would elicit appropriate responses to questions.
- The data-collection intervals were adequate to ascertain change and trends.
- Sufficient respondents could be retained over the years to insure sound data.

## RESPONSE RATES

Rates of response to the questionnaires of this study have been high. Among those who were sent questionnaires one year after graduation, 96% responded; five years after graduation, 88%; ten years after graduation, 81%; and fifteen years after graduation, 70%. Data collections for one, five, and ten years included all graduates except a few who stated they no longer wanted to be part of the study and a small group who were deceased. The chief reason for nonresponse at all data collections was inaccurate addresses. At the fifteen-year interval, questionnaires were sent only to respondents for whom a viable address remained on file, or about 83% of the graduates from the original cohort. The group responding at fifteen years, 4,049 individuals, represent 58% of the 6,983 registered nurses graduates.

All participants began with the study in the fall of 1962, but subsequent data collections were staggered over three years to accommodate the different program lengths; that is, fifteen years after graduation for associate degree graduates was 1979; for diploma graduates, 1980; and for baccalaureate graduates, 1981.

## HISTORY OF THE STUDY

The Nurse Career-Pattern Study was begun under the auspices of the National League for Nursing in the fall of 1962. The Division of Nursing, U.S. Department of Health, Education, and Welfare, believing that the study data were relevant to its responsibiltiy for developing and augmenting information about nursing needs and manpower resources, assumed support of the study of registered nurses after the passage of the Nurse Training Act of 1964; support continued until the end of 1979.[8]

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[8]Lucille Knopf and John Vaughn, *Work Life Behavior of Registered Nurses; A Report of the Nurse Career-Pattern Study*, HRP.0900630 & 0900631. (Springfield, VA. National Technical Information Service, 1979).

After analysis of data for five years after graduation for the initial group of participants who entered in 1962, the Division of Nursing, under special contract, requested a more extensive, indepth, multivariate analysis of factors affecting career decisions of nurses. The work of this contract included a statement of hypothesis inherent in data previously gathered and analyzed, determination of a method to test the hypothesis, and a description of implications of findings relative to nurse supply and education. This phase of the study has been described in detail.[9]

The fifteen-year data collection, processing, and analysis have been supported by the National League for Nursing.

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[9]John C. Vaughn, *Factors Affecting the Career Decisions and Work Patterns of Nurses in the Career-Pattern Study: A Multivariate Analysis*, HRP No. 0016157 (Springfield, VA: National Technical Information Services, 1976).

# chapter 1. biographical characteristics of respondents

This report describes the careers of nurses who completed one of the three types of registered nurse educational programs—associate degree, diploma, or baccalaureate degree—fifteen years after their graduation. Biographical characteristics observed at this time interval reflect the similarites and differences observed among students entering the three different programs. Diploma and baccalaureate nursing students were generally young, single, white women; however, these two groups differed from each other in parental characteristics. Parents of baccalaureate students had more education than did parents of other nursing students, and their fathers were very likely to be in professional or managerial positions which resulted in higher family income.

The associate degree group actually had two subgroups; young, single students who were entering nursing directly after high school and older, usually married students. The associate degree group had higher proportions of minority students and men than were observed among the diploma or baccalaureate groups. However, minority respondents tended to return questionnaires in lower proportions than other respondents, with the result that by fifteen years after graduation the study group consisted mostly of married white women (Tables 1 and 2). Table 1 shows changes in marital status since graduation. By fifteen years after graduation the highest proportion of single women was in the baccalaureate group, almost 9%; but the highest proportion of formerly married (separated, divorced, or widowed) women was in the associate degree group, about 15%.

The bimodal age distribution of associate degree participants is evident at fifteen years after graduation: slightly over 40% were 35 years old (18 when starting nursing studies) but more than a fourth were 40 years of age

**Table 1. Marital Status, by Time after Graduation and Type of Program**

| Marital Status | One Year % | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|---|
| **Associate Degree** | | | | |
| Single women | 38.1 | 14.7 | 8.3 | 6.1 |
| Married women | 51.4 | 72.5 | 74.3 | 75.7 |
| Formerly married women | 6.9 | 9.0 | 13.6 | 14.7 |
| Single men | 0.9 | 0.9 | 0.5 | 0.4 |
| Married men [1] | 2.4 | 2.8 | 2.6 | 2.4 |
| Unknown | 0.2 | 0.1 | 0.6 | 0.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N = | 1,206 | 1,103 | 956 | 782 |
| **Diploma** | | | | |
| Single women | 51.1 | 18.7 | 9.0 | 5.7 |
| Married women | 47.1 | 77.9 | 84.4 | 85.6 |
| Formerly married women | 0.7 | 2.4 | 5.6 | 7.7 |
| Single men | 0.3 | 0.1 | 0.2 | 0.1 |
| Married men [1] | 0.5 | 0.6 | 0.6 | 0.5 |
| Unknown | 0.2 | 0.2 | 0.3 | 0.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N = | 3,499 | 3,275 | 2,972 | 2,111 |
| **Baccalaureate** | | | | |
| Single women | 49.9 | 19.3 | 11.0 | 8.7 |
| Married women | 48.7 | 77.2 | 82.7 | 81.3 |
| Formerly married women | 1.1 | 3.0 | 5.8 | 9.1 |
| Single men | 0.1 | 0.1 | 0.1 | 0.1 |
| Married men [1] | 0.2 | 0.2 | 0.2 | 0.3 |
| Unknown | 0.0 | 0.2 | 0.2 | 0.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N = | 1,736 | 1,650 | 1,528 | 1,156 |

[1] Includes a small number of formerly married men.

**Table 2. Racial Identification of Group Responding Fifteen Years after Graduation and All Graduates in the Study, by Type of Program**

| Race | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Fifteen Years % | All Graduates % | Fifteen Years % | All Graduates % | Fifteen Years % | All Graduates % |
| White | 93.6 | 91.1 | 97.4 | 96.5 | 97.5 | 96.4 |
| Black | 4.6 | 7.3 | 1.6 | 2.4 | 1.6 | 2.4 |
| Oriental | 1.2 | 0.8 | 0.8 | 0.9 | 0.8 | 1.0 |
| Other | 0.4 | 0.5 | 0.1 | 0.1 | 0.1 | 0.1 |
| No Response | 0.2 | 0.3 | 0.1 | 0.1 | 0.0 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N = | 782 | 1,336 | 2,111 | 3,689 | 1,156 | 1,868 |

or older. Somewhat over 54% of the diploma and baccalaureate respondents were 36 or 37 years old respectively (Table 3).

Among married and formerly married respondents, over four out of ten diploma and baccalaureate nurses at fifteen years after graduation reported having two children, but almost 39% of associate degree graduates had three children. Small proportions (about 8%) of each group remained childless through the fifteen-year interval (Table 4).

Although most respondents reported annual family incomes of over $30,000 at fifteen years after graduation, proportions among the three groups differed: about a third of the associate degree group, 39% of the diploma, and almost 55% of the baccalaureate nurses. The highest proportion reporting family incomes of $15,000 a year or less was 14% of the associate degree group. Over 27% of the associate degree nurses identified themselves as the primary wage earner in their families, as did 18% and 21% respectively of the diploma and baccalaureate nurses (Tables 5 and 6).

The above biographical variables—marital status, age, number of children, and family income—have been demonstrated in earlier reports of this study to be related to nurses' labor force participation. The relationship of these and other characteristics to data at fifteen years after graduation will be described in chapters that follow. Essentially the three groups of graduates are different enough on important variables that nursing career differences can be anticipated.

## CHARACTERISTICS OF THE MARRIED WOMEN

Although most of the respondents in this study fifteen years after graduation were married women, they differed in the composition of their families and the description of their spouses, which contributes to understanding their

**Table 3. Age Fifteen Years after Graduation, by Type of Program**

| Age | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| 35 and under | 40.2 | 26.3 | 0.3 |
| 36 | 15.2 | 54.2 | 27.1 |
| 37 | 6.4 | 9.5 | 54.9 |
| 38 | 3.2 | 3.6 | 11.4 |
| 39 | 2.9 | 1.3 | 1.7 |
| 40-49 | 12.4 | 1.8 | 1.8 |
| 50-59 | 11.8 | 0.5 | 0.0 |
| 60 and over | 4.1 | 0.2 | 0.0 |
| No response | 3.8 | 2.6 | 2.8 |
| Total | 100.0 | 100.0 | 100.0 |
| N = | 782 | 2,111 | 1,156 |

## Table 4. Number of Children of Married and Formerly Married Participants, by Time after Graduation and Type of Program

| Number of Children | One Year % | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|---|
| **Associate Degree** | | | | |
| None | 38.6 | 20.6 | 10.0 | 8.1 |
| One | 19.2 | 27.4 | 18.1 | 13.3 |
| Two | 14.3 | 24.9 | 36.2 | 33.2 |
| Three or more | 21.6 | 20.8 | 32.4 | 38.7 |
| No response | 6.3 | 6.2 | 3.3 [1] | 6.7 [1] |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N = | 735 | 931 | 871 | 731 |
| **Diploma** | | | | |
| None | 71.3 | 25.3 | 10.8 | 7.6 |
| One | 16.7 | 36.2 | 19.6 | 12.4 |
| Two | 1.7 | 27.6 | 43.5 | 41.9 |
| Three or more | 0.9 | 6.0 | 24.6 | 32.4 |
| No response | 9.4 | 4.9 | 1.5 [1] | 5.6 [1] |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N = | 1,699 | 2,656 | 2,700 | 1,988 |
| **Baccalaureate** | | | | |
| None | 76.3 | 30.0 | 12.8 | 8.6 |
| One | 14.1 | 36.5 | 17.8 | 10.6 |
| Two | 1.8 | 25.7 | 45.0 | 44.3 |
| Three or more | 0.7 | 6.1 | 21.5 | 32.0 |
| No response | 7.1 | 1.7 | 2.9 [1] | 4.4 [1] |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N = | 868 | 1,330 | 1,359 | 1,054 |

[1] Includes some who did not specify number of children.

## Table 5. Annual Family Income at Fifteen Years after Graduation, by Type of Program

| Family Income ($) | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| 15,000 or less | 14.0 | 9.2 | 5.0 |
| 15,001-20,000 | 15.9 | 12.2 | 9.8 |
| 20,001-25,000 | 17.3 | 17.9 | 13.8 |
| 25,001-30,000 | 13.8 | 16.1 | 13.1 |
| Over 30,000 | 32.9 | 39.3 | 54.9 |
| No response | 6.1 | 5.3 | 3.4 |
| Total | 100.0 | 100.0 | 100.0 |
| N = | 782 | 2,111 | 1,156 |

**Table 6. Wage-Earner Status at Fifteen Years after Graduation, by Type of Program**

| Wage-Earner Status | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| Primary | 27.2 | 18.1 | 21.0 |
| Secondary | 64.6 | 75.6 | 75.5 |
| Equal with spouse | 0.5 | 0.9 | 0.7 |
| No response | 7.7 | 5.4 | 2.8 |
| Total | 100.0 | 100.0 | 100.0 |
| N = | 782 | 2,111 | 1,156 |

nursing careers. About a fifth of the associate degree nurses, usually older women, had been married before beginning their nursing studies (Tables 7 and 8). More than half of these women had three or more children, and about 74% of the youngest of these children was 18 years of age or older (Tables 9 and 10). About 58% of the diploma graduates married between one and five years after graduation; at fifteen years after graduation, 54% had one or two children, another 42% had three or more children, and 59% of their youngest children were between the ages of 6 and 17.

**Table 7. When Married for Married Women at Fifteen Years after Graduation, by Type of Program**

| When Married | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| Before Nursing program | 20.1 | 0.8 | 0.1 |
| During nursing program[1] | 20.8 | 26.2 | 41.8 |
| One to five years after graduation | 41.5 | 57.7 | 41.9 |
| Six to ten years after graduation | 6.6 | 9.2 | 10.6 |
| More than ten years after graduation | 2.7 | 2.7 | 3.0 |
| Remarried[2] | 7.1 | 2.8 | 2.4 |
| No response | 1.2 | 0.6 | 0.2 |
| Total | 100.0 | 100.0 | 100.0 |
| N = | 592 | 1,807 | 940 |

[1] Includes year of graduation.
[2] Remarried during 15 years since graduation; time of first marriage not given.

**Table 8. When Married and Age of Married Women Fifteen Years after Graduation, by Type of Program**

| When Married | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | 39 and Under % | 40 and Over % | 39 and Under % | 40 and Over | 39 and Under | 40 and Over |
| Before nursing program | 3.0 | 73.9 | 0.2 | (11) | 0.1 | 0 |
| During nursing program | 26.3 | 3.6 | 26.3 | (4) | 42.3 | (2) |
| One to five years after graduation | 53.3 | 5.1 | 58.5 | (8) | 41.8 | (6) |
| Six to ten years after graduation | 8.1 | 1.4 | 9.0 | (5) | 10.4 | (1) |
| More than ten years | 3.3 | 0.7 | 2.7 | (1) | 3.0 | 0 |
| Remarried | 5.1 | 13.1 | 2.8 | (2) | 2.2 | (1) |
| No response | 0.9 | 2.2 | 0.5 | (1) | 0.2 | 0 |
| Total | 100.0 | 100.0 | 100.0 | | 100.0 | |
| N = | 430 | 138 | 1,725 | (32) | 901 | (10) |

**Table 9. When Married and Number of Children of Married Women Fifteen Years after Graduation, by Type of Program**

| Number of Children | When Married | | | | |
|---|---|---|---|---|---|
| | Before Nursing Program % | During Nursing Program % | 1-5 Years after Graduation % | More than 5 Years after Graduation % | Remarried |
| **Associate Degree** | | | | | |
| None | 5.9 | 2.4 | 2.4 | (19) | 0 |
| One to two | 41.5 | 39.9 | 56.1 | (27) | (16) |
| Three or more | 52.6 | 57.7 | 41.5 | (9) | (26) |
| Total | 100.0 | 100.0 | 100.0 | | |
| N = | 118 | 123 | 246 | (55) | (42) |
| **Diploma** | | | | | |
| None | (0) | 1.9 | 4.5 | 28.5 | 0 |
| One to two | (8) | 52.3 | 53.5 | 56.5 | (32) |
| Three or more | (7) | 45.8 | 42.0 | 15.0 | (19) |
| Total | | 100.0 | 100.0 | 100.0 | |
| N = | (15) | 472 | 1,043 | 214 | (51) |
| **Baccalaureate** | | | | | |
| None | 0 | 2.8 | 5.3 | 25.8 | (2) |
| One to two | (2) | 52.2 | 57.9 | 53.1 | (7) |
| Three or more | 0 | 45.0 | 36.8 | 21.1 | (13) |
| Total | | 100.0 | 100.0 | 100.0 | |
| N = | (2) | 393 | 394 | 128 | (22) |

**Table 10. When Married and Age of Youngest or Only Child of Married Women at Fifteen Years after Graduation, by Type of Program**

| Age of Youngest or Only Child | When Married | | | | |
|---|---|---|---|---|---|
| | Before Nursing Program % | During Nursing Program % | 1-5 Years after Graduation % | More than 5 Years after Graduation % | Remarried |
| **Associate Degree** | | | | | |
| Under 6 | 3.8 | 30.7 | 39.6 | (22) | (5) |
| 6 to 17 | 22.6 | 68.4 | 59.5 | (2) | (23) |
| 18 and over | 73.6 | 0.9 | 0.9 | 0 | (11) |
| Total | 100.0 | 100.0 | 100.0 | | |
| N = | 106 | 114 | 222 | (24) | (39) |
| **Diploma** | | | | | |
| Under 6 | (1) | 22.0 | 40.7 | 77.1 | (14) |
| 6 to 17 | (6) | 78.0 | 59.3 | 22.2 | (34) |
| 18 and over | (8) | 0.0 | 0.0 | 0.7 | (2) |
| Total | | 100.0 | 100.0 | 100.0 | |
| N = | (15) | 432 | 933 | 144 | (50) |
| **Baccalaureate** | | | | | |
| Under 6 | 0 | 30.4 | 52.5 | 75.6 | (5) |
| 6 to 17 | (2) | 69.6 | 47.2 | 23.3 | (13) |
| 18 and over | 0 | 0.0 | 0.3 | 1.1 | (1) |
| Total | | 100.0 | 100.0 | 100.0 | |
| N = | (2) | 365 | 358 | 86 | (19) |

The baccalaureate nurses were just as likely to marry during the nursing program or directly after graduation as they were to marry between one and five years after graduation. Those who married during nursing school more frequently reported having three or more children (45%) than did those who married during the first five years after graduation (37%). More than half of those who married during either of these two time periods had one or two children. Almost 70% of the baccalaureate nurses who had married during nursing school had youngest children between the ages of 6 and 17, but those marrying later had higher proportions of children under six years of age.

Among nurses from all three basic programs who married six or more years after graduation, a sizable proportion, more than a fourth, reported having no children; but for those with children, more than 75% of the youngest or only children were under six years old.

Occupation and social index classification of the husbands of the married women were similar for associate degree and diploma graduates but different for baccalaureate nurses (Tables 11 and 12). About one in five of the husbands of associate degree and diploma nurses were in professional (exclusive of health professional) occupations by fifteen years after graduation, and other sizable proportions were in service occupations, sales/clerical work, or skilled trades. Among baccalaureate graduates over 28% of their spouses

## Table 11. Husband's Occupation for Married Women, by Time after Graduation and Type of Program

| Husband's Occupation [1] | Time after Graduation | | | |
|---|---|---|---|---|
| | One Year % | Five Years % | Ten Years % | Fifteen Years % |
| **Associate Degree** | | | | |
| Physician | 1.3 | 4.4 | 5.3 | 5.2 |
| Health professional (not MD) | 2.7 | 3.3 | 4.3 | 4.7 |
| Service | 9.7 | 13.5 | 16.7 | 16.7 |
| Professional | 12.4 | 17.1 | 20.7 | 21.5 |
| Owner | 5.6 | 5.7 | 6.4 | 8.8 |
| Sales/clerical | 13.4 | 13.7 | 12.9 | 13.0 |
| Outdoor | 1.9 | 2.5 | 2.1 | 3.2 |
| Skilled | 19.4 | 19.0 | 16.0 | 15.5 |
| Semi- and unskilled | 9.5 | 4.1 | 4.7 | 5.1 |
| Military | 6.5 | 5.6 | 3.3 | 1.4 |
| Student | 12.7 | 6.1 | 2.7 | 0.0 |
| Undetermined | 4.8 | 5.0 | 4.9 | 4.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 620 | 800 | 845 | 592 |

| Husband's Occupation [1] | Time after Graduation | | | |
|---|---|---|---|---|
| | One Year % | Five Years % | Ten Years % | Fifteen Years % |
| **Diploma** | | | | |
| Physician | 2.1 | 4.8 | 5.6 | 4.4 |
| Health professional (not MD) | 2.3 | 3.8 | 4.7 | 4.3 |
| Service | 10.2 | 13.3 | 15.5 | 14.3 |
| Professional | 11.4 | 18.7 | 21.0 | 21.7 |
| Owner | 3.8 | 3.4 | 3.9 | 6.6 |
| Sales/clerical | 13.3 | 16.5 | 17.1 | 16.9 |
| Outdoor | 2.0 | 2.5 | 2.8 | 3.3 |
| Skilled | 15.6 | 15.7 | 15.8 | 18.5 |
| Semi- and unskilled | 8.3 | 6.8 | 5.9 | 6.1 |
| Military | 11.2 | 5.6 | 4.0 | 2.3 |
| Student | 15.8 | 5.7 | 1.1 | 0.1 |
| Undetermined | 3.9 | 3.2 | 2.6 | 1.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,648 | 2,551 | 2,777 | 1,807 |

| Husband's Occupation [1] | Time after Graduation | | | |
|---|---|---|---|---|
| | One Year % | Five Years % | Ten Years % | Fifteen Years % |
| **Baccalaureate** | | | | |
| Physician | 5.0 | 8.5 | 9.1 | 9.4 |
| Health professional (not MD) | 4.2 | 7.6 | 7.6 | 6.8 |
| Service | 12.2 | 16.3 | 18.5 | 18.2 |
| Professional | 16.0 | 25.3 | 27.4 | 28.4 |
| Owner | 4.6 | 4.2 | 3.9 | 8.8 |
| Sales/clerical | 5.8 | 11.9 | 13.1 | 12.2 |
| Outdoor | 1.7 | 1.8 | 1.9 | 2.6 |
| Skilled | 5.7 | 5.5 | 6.6 | 7.2 |
| Semi- and unskilled | 2.6 | 1.4 | 2.6 | 1.9 |
| Military | 13.7 | 6.0 | 4.0 | 2.4 |
| Student | 26.1 | 8.6 | 2.6 | 0.4 |
| Undetermined | 2.4 | 2.8 | 2.7 | 1.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 846 | 1,274 | 1,404 | 940 |

[1] Occupations are described as follows: *Health professional* includes registered nurses; pharmacists; dentists; chiropractors; physical, occupational, and speech therapists; veterinarians; executives of health organizations; hospital administrators; and any scientific profession in a medical milieu. *Service* refers to occupations directly fulfilling a social need and includes schoolteachers, administrators in a school system, policemen, firemen, civil servants, social workers, and parole officers. *Professional* includes engineers, lawyers, accountants, statisticians, bankers, programmers, systems analysts, social or natural scientists, writers, journalists, and performing artists. *Owner* indicates employment in own or family business when no specific profession or skill is named. *Sales/clerical* includes all occupations related to retail stores and office work. *Outdoor* occupations are farmers, florists, horticulturists, agricultural agents, ranchers, forest workers, and professional athletes. *Skilled* workers include all the service, maintenance, and construction occupations generally demanding some specific training and well-defined skills. *Semi- and unskilled* workers include undifferentiated factory workers, machine operators, domestics, laborers, and porters.

**Table 12. Husband's Social Index Classification for Married Women, by Time after Graduation and Type of Program**

| Husband's Social Index Classification | Time after Graduation | | | |
|---|---|---|---|---|
| | One Year % | Five Years % | Ten Years % | Fifteen Years % |
| **Associate Degree** | | | | |
| One | 7.9 | 9.9 | 11.5 | 11.3 |
| Two | 16.5 | 23.5 | 27.7 | 31.9 |
| Three | 15.8 | 16.0 | 17.4 | 24.2 |
| Four | 34.4 | 30.1 | 26.0 | 23.0 |
| Five | 2.7 | 0.7 | 1.5 | 2.4 |
| Undetermined | 22.7 | 19.7 | 15.9 | 7.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 620 | 800 | 845 | 592 |
| **Diploma** | | | | |
| One | 6.4 | 10.0 | 10.9 | 12.2 |
| Two | 19.7 | 27.0 | 29.0 | 29.2 |
| Three | 14.0 | 17.2 | 19.7 | 24.0 |
| Four | 34.0 | 28.3 | 27.7 | 30.7 |
| Five | 1.8 | 1.7 | 1.4 | 1.8 |
| Undetermined | 24.0 | 15.7 | 11.2 | 2.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,648 | 2,551 | 2,777 | 1,807 |
| **Baccalaureate** | | | | |
| One | 15.2 | 24.3 | 21.9 | 23.1 |
| Two | 30.1 | 33.5 | 38.7 | 43.7 |
| Three | 8.7 | 12.2 | 14.8 | 21.0 |
| Four | 13.6 | 10.4 | 11.3 | 9.1 |
| Five | 0.6 | 0.3 | 0.6 | 0.3 |
| Undetermined | 31.7 | 19.2 | 12.7 | 2.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 846 | 1,274 | 1,404 | 940 |

[1] For description of Social Index Classification, see below.

were classified as professional workers, another 18% were in service-type occupations, but the proportions in sales/clerical work or skilled occupations were less than among the other two groups. Over 9% of the baccalaureate nurses were married to physicians, and almost 7% to other types of health professionals. These proportions were smaller for associate degree and diploma nurses.

The Social Index Classification used in this study is an adaptation of the Hollingshead scale.[1] Occupational title and years of education are assigned a weighted score, these two factors are combined, and this combination is then coded from one (highest social index) to five (lowest social index).

[1] A. B. Hollingshead, and F. Redlich, *Social Class and Mental Illness* (New York; John Wiley and Sons, 1958); and, by the same authors, *Two Factor Index of Social Position* (New Haven, CT, 1957; mimeographed).

Social index position one indicates a major profession and over 16 years of education. Position two applies to an occupation which may be professional (such as registered nurse) or semi-professional, but indicates 15 or 16 years of education. Designation three indicates sales, clerical, and skilled workers with more than 12 years of education, while position four designates 12 years of education for the same three groups of workers. Finally designation five indicates semiskilled or unskilled occupations with minimal education, less than 12 years.

As might be expected from occupational designations, over 23% of the baccalaureate nurses' husbands were assigned position one and 9% position four; but among associate degree and diploma nurses between 11% and 12% respectively of their husbands were at social index position one, and 23% and almost 31% respectively, at position four. Husbands at position one would be expected to have higher incomes than husbands assigned other classifications.

## SUMMARY

By fifteen years after graduation most of the participants in this study were married white women with two or three children. Diploma and baccalaureate respondents were usually in their late thirties, but the associate degree group consisted of a group in their mid-thirties and a fourth that were over 40 years of age.

The married women from the three types of nursing education differed in when they married and in husband's occupation and social index position. One out of five associate degree nurses had been married prior to studying nursing and had grown children. Other nurses from all three programs who married soon after graduation often had school-age children, but those who married more than five years after graduation had younger families. Baccalaureate nurses were more likely to marry men in the professions and have higher family incomes than nurses who graduated from other programs. This finding parallels the description of parental characteristics of baccalaureate students.

# chapter 2. labor force participation

Work in nursing is influenced by age, marital status, interval after graduation, and, among married women, by number and ages of children as well as characteristics of spouse.

Over two-thirds of the associate degree graduates reported having worked in nursing ten or more of the fifteen years since graduation. Proportions were almost evenly divided between those working all fifteen years and those who had worked from ten to fourteen years. Among diploma and baccalaureate nurses, about 64% and 56% respectively had worked in nursing ten or more of the years since graduation. The baccalaureate group had the highest proportion (17.4%) that had worked less than five of the fifteen years (Table 13).

Trend data describing work status appears in Table 14. One year after graduation almost all participants were employed in nursing, with very small

**Table 13. Years of Full- or Part-Time Work in Nursing during Fifteen Years since Graduation, by Type of Program**

| Years Worked | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| All 15 | 32.2 | 27.8 | 22.2 |
| 10-14 | 35.8 | 36.2 | 34.1 |
| 5-9 | 18.0 | 22.5 | 25.4 |
| Less than 5 | 10.9 | 12.9 | 17.4 |
| No response | 3.1 | 0.6 | 0.9 |
| Total | 100.0 | 100.0 | 100.0 |
| N = | 782 | 2,111 | 1,156 |

**Table 14. Work Status, by Time after Graduation and Type of Program**

| Work Status | Time after Graduation | | | |
|---|---|---|---|---|
| | One Year % | Five Years % | Ten Years % | Fifteen Years % |
| **Associate Degree** | | | | |
| Full-time Nursing | 77.4 | 52.3 | 43.5 | 41.8 |
| Part-time nursing | 9.8 | 22.2 | 23.6 | 24.9 |
| Nursing hours unknown | 1.7 | 0.6 | 0.4 | 1.0 |
| Not working | 10.9 | 22.4 | 27.7 | 23.9 |
| Non-nursing occupation | 0.1 | 1.8 | 4.5 | 7.7 |
| Undetermined | 0.2 | 0.6 | 0.2 | 0.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,206 | 1,103 | 956 | 782 |
| **Diploma** | | | | |
| Full-time Nursing | 81.8 | 44.0 | 33.0 | 36.4 |
| Part-time nursing | 7.6 | 23.9 | 30.5 | 32.8 |
| Nursing hours unknown | 1.3 | 0.2 | 0.8 | 0.1 |
| Not working | 9.0 | 30.6 | 32.4 | 25.1 |
| Non-nursing occupation | 0.0 | 0.8 | 3.3 | 5.5 |
| Undetermined | 0.2 | 0.5 | 0.1 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 3,499 | 3,275 | 2,972 | 2,111 |
| **Baccalaureate** | | | | |
| Full-time Nursing | 84.5 | 46.7 | 36.6 | 38.0 |
| Part-time nursing | 4.6 | 14.6 | 22.1 | 26.1 |
| Nursing hours unknown | 0.4 | 0.7 | 1.1 | 0.7 |
| Not working | 10.1 | 36.5 | 34.6 | 27.2 |
| Non-nursing occupation | 0.3 | 1.1 | 5.6 | 8.0 |
| Undetermined | 0.2 | 0.4 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,736 | 1,650 | 1,528 | 1,156 |

percentages, ranging from 9% for diploma to 10.9% for associate degree, not working. Labor force participation dropped sharply between one and five years after graduation, the time period when most of the young women in the study married.

At the five-year interval, 22.4% of the associate degree, 30.6% of the diploma, and 36.5% of the baccalaureate graduates were not working. The proportions not working were similar at five and ten years in all three groups, but at ten years there was some change from full-time to part-time employment. By fifteen years after graduation the proportion employed in nursing increased among diploma and baccalaureate graduates, but remained about the same for associate degree nurses. Among those not working fifteen years after graduation about 8% said they were actively looking for nursing work and another 7% had returned to school.

The higher proportions of associate degree nurses working at five and

ten years after graduation is owing to the older nurses in this group. Many of the older married nurses went into the labor force after graduation and worked continuously. By fifteen years after graduation, however, the associate degree nurses who had been 18 or 19 years old when starting the program were married and had young families, some had left the work force, and others had changed to part-time work. A few of the older nurses had retired. These changes resulted in a leveling off of the proportion of associate degree nurses working at ten and fifteen years, 67.5% and 67.7%, respectively (full-time, part-time, and hours unknown). Proportions reporting employment in non-nursing positions increased with the time after graduation, but were never very large, amounting to about 6% of the diploma graduates and 8% of the associate degree and baccalaureate graduates fifteen years after graduation. The non-nursing designation is used in this study to describe employment that does not require registered nurse licensure.

Table 15 describes selected characteristics of the group in non-nursing work as contrasted with the total cohort. Those who chose non-nursing work were, for the most part, women who had worked in nursing less than five of the fifteen years since graduation; some, in fact, had never worked as a registered nurse. Family incomes of the non-nursing workers were slightly higher than among the total group. Perhaps the most important difference between the non-nursing workers and the total cohort is the proportion who had completed a non-nursing degree after graduation from the nursing program, 14.1%. It is of interest to note that over 36% of those in non-nursing occupations remained in the health field.

**Table 15. Selected Characteristics of Those Employed in Non-Nursing Work Fifteen Years after Graduation Compared with Cohort**

| Characteristic | Employed in Non-Nursing Work [1] % | Cohort % |
|---|---|---|
| Health-related employment | 36.3 | 2.4 |
| Married woman | 80.0 | 82.5 |
| Has children | 84.8 | 85.5 |
| Worked in nursing less than 5 years | 34.8 | 13.8 |
| Never worked as RN | 3.3 | 0.5 |
| No RN license | 13.3 | 3.7 |
| Annual family income $30,000 or over | 47.0 | 42.5 |
| Primary wage earner | 19.6 | 20.7 |
| Four or more residence changes | 61.9 | 59.9 |
| Nursing degree [2] | 8.9 | 13.2 |
| Non-nursing degree [2] | 14.1 | 6.6 |
| N= | 270 | 4,049 |

[1] Number in non-nursing work includes 60 AD, 117 diploma, and 93 baccalaureate graduates; all but 2 were women.

[2] Completion of a degree in addition to basic RN program.

## Table 16. Work and Marital Status of Women, by Time after Graduation and Type of Program

| Work/Marital Status | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|
| **Associate Degree** | | | |
| Not Married [1] | | | |
| Full-time nursing | 84.7 | 82.7 | 74.7 |
| Part-time nursing | 10.7 | 10.7 | 15.1 |
| Not working | 4.6 | 6.6 | 10.2 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 242 | 196 | 146 |
| Married | | | |
| Full-time nursing | 42.5 | 32.5 | 36.3 |
| Part-time nursing | 27.7 | 30.1 | 31.5 |
| Not working | 29.8 | 37.4 | 32.2 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 783 | 674 | 534 |
| **Diploma** | | | |
| Not Married [1] | | | |
| Full-time nursing | 88.0 | 84.3 | 79.6 |
| Part-time nursing | 8.0 | 8.9 | 14.2 |
| Not working | 4.0 | 6.8 | 6.2 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 674 | 415 | 260 |
| Married | | | |
| Full-time nursing | 32.3 | 24.8 | 31.6 |
| Part-time nursing | 29.0 | 36.2 | 38.4 |
| Not working | 38.7 | 39.0 | 30.0 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 2,511 | 2,395 | 1,708 |
| **Baccalaureate** | | | |
| Not Married [1] | | | |
| Full-time nursing | 88.9 | 89.0 | 84.4 |
| Part-time nursing | 4.0 | 6.3 | 10.0 |
| Not working | 7.1 | 4.7 | 5.6 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 350 | 237 | 180 |
| Married | | | |
| Full-time nursing | 35.9 | 28.8 | 32.1 |
| Part-time nursing | 18.1 | 27.4 | 32.7 |
| Not working | 46.0 | 43.8 | 35.2 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 1,249 | 1,175 | 862 |

[1] Includes single and formerly married.

Data presented thus far apply to all participants. The remainder of this chapter describes women or married women only. By fifteen years after graduation, 41 of the 90 men graduates remained in the study; 24 had graduated from an associate degree program, 37 were employed full time in nursing positions, and 36 had worked continuously for the fifteen years. Single women and separated, divorced, or widowed women were usually in the labor force at all times surveyed (Table 16). Among married women, a higher proportion of associate degree graduates worked full time than did graduates of the other two programs; however, a considerable proportion of married diploma and baccalaureate nurses worked part time, with proportions increasing at each time interval. Between the ten- and fifteen-year data collections, the proportion of married diploma and baccalaureate graduates working full time also increased.

Table 17 describes the reasons given by women for not working at all or for choosing non-nursing employment. Responses to this item were similar among graduates of all three nursing programs. The two predominant reasons women did not work were because they had children at home who needed their care or because there was no financial necessity for them to work. It should also be noted that more than a fifth of those not working at both ten and fifteen years after graduation indicated they could not find work for the hours they wanted.

Those in non-nursing employment mentioned care of children as a reason for this choice, but in much lower proportions than those not employed, about 44% as contrasted with 79% at the fifteen-year period. About four out of ten in non-nursing employment fifteen years after graduation said they could

**Table 17. Reasons for Not Working or Not Working in Nursing Ten and Fifteen Years after Graduation**

| Reasons | Not Working | | Not Working in Nursing | |
|---|---|---|---|---|
| | Ten Years % | Fifteen Years % | Ten Years % | Fifteen Years % |
| Children | 87.5 | 79.1 | 43.6 | 44.1 |
| Family | 28.5 | 37.4 | 32.6 | 30.4 |
| Financially unnecessary | 51.1 | 52.1 | 24.7 | 24.4 |
| Earn more at other work | 0.5 | 3.4 | 22.5 | 32.6 |
| Not interested in nursing | 3.8 | 11.2 | 16.3 | 22.2 |
| Desired position | 6.6 | 8.2 | 11.0 | 13.3 |
| Desired hours | 21.4 | 23.9 | 30.0 | 40.7 |
| Transportation | 5.2 | 4.3 | 4.0 | 3.0 |
| Health | 4.7 | 5.6 | 4.4 | 5.5 |
| In school | 7.7 | 6.8 | 6.2 | 6.3 |
| Personal | 3.8 | 6.5 | 7.5 | 8.5 |
| Licensure | 0.7 | 2.0 | 2.6 | 3.7 |
| Prepared in other field | 0.2 | 0.2 | 4.4 | 7.4 |
| Other | 2.5 | 6.3 | 17.2 | 8.5 |
| N[1] = | 1,755 | 1,031 | 227 | 270 |

[1] Multiple response possible. Percentages based on N.

not find suitable hours in nursing, the implication being that if they could find the hours they desired then they would work in nursing. However, at the same time interval almost a third thought they were earning more at non-nursing work and somewhat over a fifth had lost interest in nursing. Table 18 describes the reasons married women were not working fifteen years after graduation. Among graduates of all three programs, child care responsibilities was the predominant reason, but over 56% of the baccalaureate nurses had no financial need to be employed outside the home.

**Table 18. Reasons of Married Women for Not Working Fifteen Years after Graduation, by Type of Program**

| Reasons | Not Working | | |
|---|---|---|---|
| | Associate Degree % | Diploma % | Baccalaureate % |
| Children | 68.6 | 77.8 | 78.9 |
| Family | 32.0 | 35.5 | 37.0 |
| Financially unnecessary | 48.3 | 46.0 | 56.1 |
| Earn more at other work | 2.3 | 1.8 | 5.6 |
| Not interested in nursing | 13.4 | 6.4 | 13.9 |
| Desired Position | 4.1 | 7.2 | 8.3 |
| Desired hours | 13.4 | 23.4 | 23.1 |
| Transportation | 2.9 | 5.1 | 2.3 |
| Health | 4.7 | 4.1 | 5.0 |
| In school | 6.9 | 5.1 | 5.0 |
| Personal | 7.0 | 4.9 | 4.9 |
| Licensure | 1.2 | 1.6 | 2.6 |
| Prepared in another field | 0.0 | 0.2 | 0.3 |
| Other | 7.6 | 5.1 | 5.6 |
| N [1] = | 172 | 513 | 303 |

[1] Multiple response possible. Percentages based on N.

At all phases of this study, age at entrance to the nursing program has had an effect on labor force participation after graduation. Women who were 20 years of age or older at the beginning of their nursing studies and who graduated from associate degree or diploma programs worked in higher proportions than did their younger counterparts, and they usually worked full time. Among the baccalaureate graduates, the older members of the group had slightly higher proportions not working at the five- and ten-year intervals. However, among all three groups, full-time nursing employment among the younger group was higher fifteen years after graduation than it had been at ten years (Table 19).

Table 20, which describes only married women, relates the time of marriage to the total number of years worked in nursing since graduation. Over

**Table 19. Work Status of Women, by Age at Entrance into Nursing Program, Time after Graduation, and Type of Program**

| Work Status | Age at Entrance into Nursing Program | | | | | |
|---|---|---|---|---|---|---|
| | Associate Degree | | Diploma | | Baccalaureate | |
| | Under 20 % | 20 and Over % | Under 20 % | 20 and Over % | Under 20 % | 20 and Over % |
| **Five Years after Graduation** | | | | | | |
| Full-time nursing | 46.4 | 58.8 | 43.4 | 54.9 | 47.7 | 47.6 |
| Part-time nursing | 25.4 | 22.1 | 24.8 | 19.0 | 15.4 | 12.2 |
| Not working | 28.2 | 19.1 | 31.8 | 26.1 | 36.9 | 40.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 554 | 434 | 2,871 | 237 | 1,401 | 164 |
| **Ten Years after Graduation** | | | | | | |
| Full-time nursing | 32.8 | 60.0 | 32.5 | 51.5 | 39.1 | 41.3 |
| Part-time nursing | 27.7 | 22.1 | 32.8 | 19.6 | 24.2 | 18.8 |
| Not working | 39.5 | 17.9 | 34.7 | 28.9 | 36.7 | 39.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 488 | 358 | 2,542 | 204 | 1,247 | 138 |
| **Fifteen Years after Graduation** | | | | | | |
| Full-time nursing | 36.6 | 55.5 | 37.6 | 47.3 | 42.0 | 38.4 |
| Part-time nursing | 31.7 | 23.5 | 35.9 | 23.2 | 28.0 | 33.3 |
| Not working | 31.7 | 21.0 | 26.5 | 29.5 | 30.0 | 28.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 391 | 272 | 1,794 | 129 | 926 | 99 |

44% of those who were married prior to study in an associate degree program reported employment in nursing for the entire fifteen years. Lower proportions of those married during nursing school or shortly after graduation had worked the entire time, but 30% and more of these graduates, regardless of which program they attended, had been employed between ten and fourteen of the years since graduation. Of nurses who had married more than five years after graduation, almost 43% (diploma) and 36% (baccalaureate) had worked as nurses for all fifteen years.

Married women with no children worked as nurses in larger proportions than women with children (Table 21). Over the data-collection years, however, the number of married women without children declined. Nurses who had only one child increased their labor force participation at each data-collection interval. Among married women with two or more children, higher proportions were working at the final data collection than had been working ten years after graduation, and the rate of increase for those working full time was greater among diploma and baccalaureate graduates than among associate degree graduates. Eight percent of the associate degree and

**Table 20. Years of Full- or Part-Time Work for Married Women during the Fifteen Years since Graduation, by When Married and Type of Program**

| Years Worked | When Married | | | | |
|---|---|---|---|---|---|
| | Before Nursing Program % | During Program [1] % | One-Five Years after Graduation % | More than Five Years after Graduation % | Remarried % |
| **Associate Degree** | | | | | |
| All 15 | 44.5 | 17.1 | 15.1 | (17) | (15) |
| 10-14 | 42.0 | 29.3 | 37.0 | (25) | (16) |
| 5-9 | 6.7 | 32.5 | 26.4 | (9) | (6) |
| Less than 5 | 5.1 | 17.1 | 19.1 | (1) | (3) |
| No response | 1.7 | 4.0 | 2.4 | (3) | (2) |
| Total | 100.0 | 100.0 | 100.0 | | |
| N= | 119 | 123 | 246 | (55) | (42) |
| **Diploma** | | | | | |
| All 15 | (3) | 18.6 | 20.1 | 42.5 | (14) |
| 10-14 | (7) | 37.8 | 35.1 | 41.1 | (32) |
| 5-9 | (2) | 24.3 | 28.2 | 15.4 | (3) |
| Less than 5 | (3) | 18.2 | 16.1 | 0.5 | (2) |
| No response | 0 | 1.1 | 0.5 | 0.5 | 0 |
| Total | | 100.0 | 100.0 | 100.0 | |
| N= | (15) | 473 | 1,043 | 214 | (51) |
| **Baccalaureate** | | | | | |
| All 15 | — | 11.2 | 14.5 | 35.9 | (5) |
| 10-14 | — | 33.3 | 30.7 | 43.0 | (10) |
| 5-9 | (2) | 27.7 | 34.0 | 15.6 | (6) |
| Less than 5 | — | 26.5 | 20.3 | 3.9 | 0 |
| No response | — | 1.3 | 0.5 | 1.6 | (1) |
| Total | | 100.0 | 100.0 | 100.0 | |
| N= | (2) | 393 | 394 | 128 | (22) |

[1] Includes year of graduation.

## Table 21. Work Status of Married Women, by Number of Children at Five, Ten, and Fifteen Years after Graduation and Type of Program [1]

| Number of Children/ Work Status | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|
| **Associate Degree** | | | |
| No children | | | |
| Full-Time nursing | 67.8 | 63.5 | 60.6 |
| Part-time nursing | 18.7 | 19.0 | 18.2 |
| Not working | 13.5 | 17.5 | 21.2 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 171 | 63 | 33 |
| One child | | | |
| Full-Time nursing | 31.3 | 38.4 | 49.2 |
| Part-time nursing | 32.3 | 26.8 | 28.8 |
| Not working | 36.4 | 34.8 | 22.0 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 217 | 112 | 59 |
| Two or more children | | | |
| Full-Time nursing | 34.8 | 26.7 | 32.3 |
| Part-time nursing | 30.2 | 33.2 | 32.7 |
| Not working | 35.0 | 40.1 | 35.0 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 348 | 476 | 409 |

| Number of Children/ Work Status | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|
| **Diploma** | | | |
| No children | | | |
| Full-Time nursing | 71.1 | 70.9 | 67.6 |
| Part-time nursing | 13.4 | 14.3 | 16.7 |
| Not working | 15.5 | 14.8 | 15.7 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 626 | 230 | 108 |
| One child | | | |
| Full-Time nursing | 23.1 | 31.9 | 51.0 |
| Part-time nursing | 35.2 | 31.9 | 28.8 |
| Not working | 41.7 | 36.2 | 20.2 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 916 | 454 | 198 |
| Two or more children | | | |
| Full-Time nursing | 11.9 | 16.6 | 26.5 |
| Part-time nursing | 34.4 | 40.4 | 41.1 |
| Not working | 53.7 | 43.0 | 32.4 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 852 | 1,677 | 1,307 |

| Number of Children/ Work Status | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|
| **Baccalaureate** | | | |
| No children | | | |
| Full-Time nursing | 73.3 | 77.7 | 73.7 |
| Part-time nursing | 7.9 | 7.9 | 12.3 |
| Not working | 18.8 | 14.4 | 14.0 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 367 | 139 | 57 |
| One child | | | |
| Full-Time nursing | 22.6 | 30.9 | 40.3 |
| Part-time nursing | 22.1 | 28.4 | 29.9 |
| Not working | 55.3 | 40.7 | 29.8 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 461 | 194 | 77 |
| Two or more children | | | |
| Full-Time nursing | 14.5 | 19.8 | 27.4 |
| Part-time nursing | 23.9 | 30.5 | 34.8 |
| Not working | 61.6 | 49.7 | 37.8 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 401 | 815 | 691 |

[1] Percentages are given in instances where N is small to preserve descriptive qualities.

**Table 22. Work Status of Married Women, by Age of Youngest or Only Child at Ten and Fifteen Years after Graduation and Type of Program**

| Age of Youngest or only Child/ Work Status | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Ten Years % | Fifteen Years % | Ten Years % | Fifteen Years % | Ten Years % | Fifteen Years % |
| Child under 6 | | | | | | |
| Full-time nursing | 16.1 | 15.7 | 16.5 | 18.7 | 17.1 | 21.2 |
| Part-time nursing | 33.2 | 30.0 | 39.4 | 38.4 | 32.0 | 33.0 |
| Not working | 50.6 | 54.3 | 44.1 | 42.9 | 50.9 | 45.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 385 | 140 | 1,842 | 583 | 862 | 349 |
| Child 6-11 | | | | | | |
| Full-time nursing | 34.1 | 35.8 | 39.2 | 36.1 | 48.9 | 33.6 |
| Part-time nursing | 38.8 | 37.8 | 35.7 | 40.5 | 20.2 | 35.9 |
| Not working | 27.1 | 26.4 | 25.1 | 23.4 | 30.9 | 30.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 85 | 201 | 263 | 833 | 139 | 387 |
| Child 12 and over | | | | | | |
| Full-time nursing | 67.5 | 52.4 | 70.0 | 44.2 | (6) | 51.6 |
| Part-time nursing | 22.2 | 26.2 | 10.0 | 36.0 | 0 | 29.0 |
| Not working | 10.3 | 21.4 | 20.0 | 19.8 | (2) | 19.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | | 100.0 |
| N= | 117 | 126 | 20 | 86 | (8) | 31 |

[1] Percentages are given in instances where N is small to preserve descriptive qualities.

**Table 23. Work Status of Married Women with Two or More Children at Ten and Fifteen Years after Graduation, by Age of Youngest Child and Type of Program**

| Work Status | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Child Under 6 % | Child 6 and Over % | Child Under 6 % | Child 6 and Over % | Child Under 6 % | Child 6 and Over % |
| **Ten Years** | | | | | | |
| Full-time nursing | 12.8 | 53.4 | 14.4 | 35.7 | 15.8 | 46.7 |
| Part-time nursing | 35.9 | 27.6 | 40.8 | 36.8 | 31.8 | 21.9 |
| Not working | 51.3 | 19.0 | 44.8 | 27.5 | 52.4 | 31.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 312 | 163 | 1,503 | 171 | 710 | 105 |
| **Fifteen Years** | | | | | | |
| Full-time nursing | 15.5 | 39.3 | 16.3 | 33.4 | 19.6 | 33.8 |
| Part-time nursing | 29.5 | 35.8 | 39.0 | 42.5 | 33.5 | 36.7 |
| Not working | 55.0 | 24.9 | 44.7 | 24.1 | 46.9 | 29.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 129 | 285 | 521 | 784 | 322 | 373 |

slightly over 4% of diploma and baccalaureate nurses had five or more children.

Not only the number of children, but also the age of the youngest or only child was related to the nurses' work status (Table 22). Mothers of children over 12 were very likely to be working. About seven out of ten mothers whose youngest child was between 6 and 11 years old were working ten and fifteen years after graduation, and this work was about equally divided between full- and part-time employment. When the youngest or only child was under six, full-time work was sharply curtailed, but more than three out of ten of the mothers of young children reported part-time employment as nurses.

Table 23 examines the work status of married women with two or more children at the ten- and fifteen-year periods by the age of the youngest child. Regardless of the time period or type of program from which the nurse had graduated, if the youngest child was under six, about half of the nurses were not working. When the youngest child was six or older, that is, of school age, 70% or more of the mothers were employed in nursing.

The shift in work status between ten and fifteen years after graduation among married women with children is described in Table 24. Among these mothers working full time fifteen years after graduation, most had also been working full time at ten years, but a sizable proportion, 24% of the associate degree and baccalaureate group and 27.7% of the diploma nurses, had been part-time workers at the earlier period. A smaller proportion, about 13% of the associate degree, 17% and 19% of diploma and baccalaureate, respectively, who were working full time at the last data collection had not been working at all at the ten-year interval. Among the part-time workers fifteen years after graduation, about three out of ten had not been working ten years after graduation. Of the nurses who were not working fifteen years after graduation, almost 16% of the associate degree, 10.7% of the diploma, and 8.2% of the baccalaureate nurses had been employed in nursing full time ten years after graduation. For the nurses who were in non-nursing work fifteen years after graduation, 43.5% of the associate degree, 52.3% of the diploma, and 38.7% of the baccalaureate graduates had not been working at the ten-year period. The largest proportional shifts between ten and fifteen years were from not working to part-time nursing work and from not working to non-nursing employment. It should be noted, however, that numerically the non-nursing group is small.

At the time periods covered in this study, the work status of married women was affected not only by the number and ages of their children but also by the social index position assigned to their husbands (Table 25). With husbands in the Social Index Classification of I or II (a professional or semi-professional worker with 16 or more years of education), about a fourth of the nurses worked full time fifteen years after graduation, about a third worked part time, and a high proportion were not working, 37.8%, 36.3%, and 41.3%, respectively, for graduates from the three programs.

**Table 24. Work Status of Married Women with Children at Ten and Fifteen Years after Graduation, by Type of Program**

| Work Status at 10 Years after Graduation | Work Status at 15 Years after Graduation | | | |
|---|---|---|---|---|
| | Full-Time Nursing % | Part-Time Nursing % | Not Working % | Non-nursing Occupation [1] % |
| **Associate Degree** | | | | |
| Full-time nursing | 60.9 | 20.1 | 15.9 | 13.0 |
| Part-time nursing | 24.1 | 42.2 | 14.6 | 19.6 |
| Not working | 12.7 | 32.7 | 65.2 | 43.5 |
| Non-nursing occupation | 0.6 | 4.4 | 4.3 | 23.9 |
| No response | 1.7 | 0.6 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 174 | 159 | 164 | 46 |
| **Diploma** | | | | |
| Full-time nursing | 53.2 | 11.1 | 10.7 | 14.8 |
| Part-time nursing | 27.7 | 57.0 | 17.6 | 13.6 |
| Not working | 16.7 | 29.4 | 67.5 | 52.3 |
| Non-nursing occupation | 1.3 | 1.7 | 3.6 | 18.2 |
| No response | 1.1 | 0.8 | 0.6 | 1.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 466 | 637 | 495 | 88 |
| **Baccalaureate** | | | | |
| Full-time nursing | 54.9 | 17.2 | 8.2 | 16.1 |
| Part-time nursing | 24.0 | 46.0 | 14.0 | 16.1 |
| Not working | 18.5 | 33.9 | 70.0 | 38.7 |
| Non-nursing occupation | 1.3 | 1.8 | 7.2 | 27.4 |
| No response | 1.3 | 1.1 | 0.6 | 1.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 233 | 274 | 293 | 62 |

[1] Percentages are given in instances where N is small to preserve descriptive qualities.

## Table 25. Work Status at Five, Ten, and Fifteen Years after Graduation, by Husband's Social Index Position and Type of Program [1]

| Associate Degree | | | |
|---|---|---|---|
| Work Status | Five Years % | Ten Years % | Fifteen Years % |
| **Social Index Position I or II [2]** | | | |
| Full-time nursing | 29.3 | 22.5 | 27.1 |
| Part-time nursing | 31.3 | 28.0 | 35.1 |
| Not working | 39.4 | 49.5 | 37.8 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 259 | 271 | 225 |
| **Social Index Position III [2]** | | | |
| Full-time nursing | 37.6 | 26.5 | 40.5 |
| Part-time nursing | 31.2 | 32.5 | 26.0 |
| Not working | 31.2 | 41.0 | 33.5 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 125 | 117 | 131 |
| **Social Index Position IV or V [2]** | | | |
| Full-time nursing | 51.4 | 43.5 | 51.1 |
| Part-time nursing | 26.8 | 35.2 | 30.9 |
| Not working | 21.8 | 21.3 | 18.0 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 243 | 193 | 139 |

| Diploma | | | |
|---|---|---|---|
| Work Status | Five Years % | Ten Years % | Fifteen Years % |
| **Social Index Position I or II [2]** | | | |
| Full-time nursing | 24.1 | 19.6 | 24.2 |
| Part-time nursing | 28.2 | 32.2 | 39.5 |
| Not working | 47.7 | 48.2 | 36.3 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 929 | 958 | 698 |
| **Social Index Position III [2]** | | | |
| Full-time nursing | 32.6 | 23.2 | 32.7 |
| Part-time nursing | 31.9 | 42.6 | 36.1 |
| Not working | 35.5 | 34.2 | 31.3 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 436 | 479 | 416 |
| **Social Index Position IV or V [2]** | | | |
| Full-time nursing | 35.4 | 31.0 | 39.4 |
| Part-time nursing | 31.8 | 40.8 | 39.5 |
| Not working | 32.8 | 28.2 | 21.1 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 752 | 709 | 559 |

| Baccalaureate | | | |
|---|---|---|---|
| Work Status | Five Years % | Ten Years % | Fifteen Years % |
| **Social Index Position I or II [2]** | | | |
| Full-time nursing | 26.3 | 22.2 | 26.9 |
| Part-time nursing | 18.2 | 27.8 | 31.8 |
| Not working | 55.5 | 50.0 | 41.3 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 725 | 716 | 569 |
| **Social Index Position III [2]** | | | |
| Full-time nursing | 42.9 | 36.0 | 37.8 |
| Part-time nursing | 18.6 | 28.6 | 37.3 |
| Not working | 38.5 | 35.4 | 24.9 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 156 | 175 | 185 |
| **Social Index Position IV or V [2]** | | | |
| Full-time nursing | 49.2 | 46.9 | 48.8 |
| Part-time nursing | 23.5 | 30.6 | 31.4 |
| Not working | 27.3 | 22.5 | 19.8 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 132 | 147 | 86 |

[1] Includes only women married at times specified in table.

[2] For description of Social Index Positions, see pp. 15-16.

Conversely, with husbands in the Social Index Classification of IV or V (a blue collar worker with 12 or less years of education), half of the associate degree, over 39% of the diploma, and almost 49% of the baccalaureate nurses were working full time fifteen years after graduation. Only one out of five of the nurses whose husband was in one of the lower social index positions was not working at the final data collection.

When married women worked full time, annual family income was higher than incomes reported by the total cohort or by all married women (Table 26). Annual family income over $30,000 was reported by almost 49% of the associate degree, 56% of the diploma, and 78% of the baccalaureate married nurses who worked full time. As might be expected, formerly mar-

**Table 26. Annual Family Income of Cohort, Married Women, and Married and Formerly Married Women Working Full Time at Fifteen Years after Graduation, by Type of Program**

| Annual Family Income ($) | Cohort % | Married Women % | Married Women Working Full-Time % | Formerly Married Women Working Full-Time [1] % |
|---|---|---|---|---|
| **Associate Degree** | | | | |
| 15,000 or less | 14.0 | 8.3 | 5.1 | 30.8 |
| 15,001-20,000 | 15.9 | 10.3 | 6.2 | 42.3 |
| 20,001-25,000 | 17.3 | 17.7 | 16.9 | 14.1 |
| 25,001-30,000 | 13.8 | 16.9 | 21.6 | 5.1 |
| Over 30,000 | 32.9 | 40.5 | 48.7 | 5.1 |
| No response | 6.1 | 6.3 | 1.5 | 2.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 782 | 592 | 195 | 78 |
| **Diploma** | | | | |
| 15,000 or less | 9.2 | 5.9 | 3.0 | 25.2 |
| 15,001-20,000 | 12.2 | 8.7 | 5.7 | 41.1 |
| 20,001-25,000 | 17.9 | 17.5 | 13.7 | 24.3 |
| 25,001-30,000 | 16.1 | 18.1 | 19.6 | 2.8 |
| Over 30,000 | 39.3 | 44.6 | 56.1 | 4.7 |
| No response | 5.3 | 5.2 | 1.9 | 1.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 2,111 | 1,804 | 540 | 107 |
| **Baccalaureate** | | | | |
| 15,000 or less | 5.0 | 3.4 | 1.8 | 6.8 |
| 15,001-20,000 | 9.8 | 5.6 | 2.9 | 28.8 |
| 20,001-25,000 | 13.8 | 9.6 | 6.5 | 37.0 |
| 25,001-30,000 | 13.1 | 13.3 | 10.1 | 12.3 |
| Over 30,000 | 54.9 | 64.8 | 78.0 | 15.1 |
| No response | 3.4 | 3.3 | 0.7 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,156 | 940 | 277 | 73 |

[1] Percentages are given in instances where N is small to preserve descriptive qualities.

ried women, who were often the primary wage earner in the family (Table 27), had lower annual family incomes than married women. The modal interval for formerly married women was between $15,001 and $20,000 for associate degree and diploma nurses and between $20,001 and $25,000 for baccalaureate graduates. Between 15.4% (associate degree) and 18.9% (diploma) married nurses identified themselves as the primary family wage earner.

All working mothers, those employed full and part time in nursing or other occupations, were asked to describe methods of child care during their working hours (Table 28). Among the associate degree nurses, 47% had children in school and almost 19% noted that their children were grown and required no supervision. For diploma and baccalaureate respondents over half of each group had children in school, and the second most frequent response for these women was that their husbands took care of the children. More often than not, working mothers needed more than one provision for child care; a child in school required supervision after school hours, or more than one type of arrangement was necessary for children of different ages.

**Table 27. Wage-Earner Status of Married and Formerly Married Women Working Full Time at Fifteen Years after Graduation, by Type of Program**

| Wage-Earner Status | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Married % | Formerly Married [1] % | Married % | Formerly Married [1] % | Married % | Formerly Married [1] % |
| Primary | 15.4 | 89.7 | 18.9 | 95.3 | 17.3 | 94.5 |
| Secondary | 80.0 | 2.6 | 75.4 | 0.0 | 78.0 | 5.5 |
| Equal with spouse | 1.0 | — | 3.0 | — | 2.5 | — |
| No response | 3.6 | 7.7 | 2.7 | 4.7 | 2.2 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 195 | 78 | 540 | 107 | 277 | 73 |

[1] Percentages are given in instances where N is small to preserve descriptive qualities.

**Table 28. Child Care Provisions of Working Mothers,[1] by Type of Program**

| Child Care Provision | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| In own home | 9.3 | 17.9 | 14.8 |
| In another's home | 14.4 | 17.5 | 22.6 |
| Husband | 24.8 | 44.6 | 32.0 |
| Relative | 8.5 | 14.5 | 11.4 |
| Day care agency | 5.7 | 6.5 | 10.9 |
| Children in school | 47.0 | 55.0 | 59.1 |
| Other | 4.9 | 4.8 | 4.5 |
| Children grown | 18.6 | 7.2 | 8.2 |
| N [2]= | 472 | 1,317 | 660 |

[1] Includes nursing and non-nursing employment.

[2] Multiple response possible. Percentages based on number of working mothers.

If nurses are to participate in the labor force, work in nursing has to be available. Data generally substantiate the fact that employment in nursing was relatively easy to find, but there are several ramifications to this simple fact.

As shown in Table 29, more than 45% of the diploma and baccalaureate, but 37% of the associate degree, nurses had looked for nursing work in the five years preceding the final data collection of the study. Responses as to the availability of employment and of desired jobs were therefore reflective of job-seeking experiences of recent years. The fact that a lower proportion of associate degree graduates had looked for work during these years than had nurses from the other two programs reflects the earlier data collection date and the tendency of many associate degree nurses to be employed continuously, often with the same employer.

**Table 29. Year Last Looked for Nursing Employment, by Type of Program**

| Year Last Looked | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| 1964-67 | 16.1 | 12.7 | 9.4 |
| 1968-71 | 14.8 | 14.1 | 15.9 |
| 1972-75 | 16.5 | 17.9 | 17.1 |
| 1976-79 | 37.3 | 34.5 | 27.4 |
| 1980-81 | na [2] | 10.8 | 22.2 |
| No response [1] | 15.2 | 10.0 | 8.0 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 782 | 2,111 | 1,156 |

[1] Includes a small group that had never looked for work.

[2] Not applicable; associate degree 15-year data collected in 1979.

Questioned as to the availability of employment and of desired jobs at both ten and fifteen years after graduation, most respondents, about 70%, thought employment was easy to find ten years after graduation, and this proportion increased at the fifteenth year to include almost three-fourths of the respondents (Table 30). However, lower proportions, ranging between 52% for baccalaureate nurses at fifteen years to almost 59% for associate degree nurses at ten years thought the job they wanted was easy to find. Among respondents from all three programs, the proportions who thought desired jobs were easy to find decreased during the same time period that the proportion who felt that employment was easy to find increased.

Table 31 illustrates that, as the time after graduation increases, a decrease is seen in the proportion who perceive desired jobs as easy to find. Among nurses who had last looked for work in the years immediately preceding the final survey, about 46% of the associate degree, 41% of the diploma, and 39% of the baccalaureate nurses thought the job they wanted was easy to find. About a fourth of all graduates thought locating a preferred job was

**Table 30. Availability of Nursing Employment and Job Desired When Work was Sought at Ten and Fifteen Years after Graduation, by Type of Program**

| Employment Availability | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Ten Years % | Fifteen Years % | Ten Years % | Fifteen Years % | Ten Years % | Fifteen Years % |
| Easy to find | 71.5 | 72.6 | 73.1 | 76.3 | 68.7 | 76.7 |
| Somewhat difficult | 12.0 | 9.6 | 12.6 | 11.5 | 17.5 | 12.4 |
| Very difficult | 2.7 | 2.4 | 2.0 | 2.5 | 4.5 | 3.3 |
| Nonexistent | 0.5 | 1.3 | 1.0 | 0.8 | 1.4 | 1.0 |
| Other and no response | 13.2 | 14.0 | 11.3 | 8.9 | 7.9 | 6.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 956 | 782 | 2,972 | 2,111 | 1,528 | 1,156 |
| **Job Desired** | | | | | | |
| Easy to find | 58.6 | 56.3 | 58.0 | 56.2 | 54.6 | 52.4 |
| Somewhat difficult | 16.9 | 16.5 | 18.4 | 18.8 | 21.1 | 22.2 |
| Very difficult | 7.1 | 8.1 | 6.0 | 9.0 | 8.0 | 10.2 |
| Nonexistent | 3.3 | 3.6 | 4.3 | 5.0 | 6.0 | 6.9 |
| Other and no response [1] | 14.1 | 15.5 | 13.3 | 11.0 | 10.2 | 8.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 956 | 782 | 2,972 | 2,111 | 1,528 | 1,156 |

[1] Includes those who indicated that a job had been offered to them, without their looking for work.

somewhat difficult, and proportions ranging from 24% associate degree to 34.8% baccalaureate said it was very difficult. At all time periods lower proportions of baccalaureate nurses found the desired job easily available than had the graduates of the other two programs.

Nurses who stated that the wanted job was somewhat difficult or very difficult to find or nonexistent were asked to give the primary reason for this problem. Despite the fact that one answer was requested, many nurses offered more than one reason why a preferred job was difficult to obtain; and their responses are summarized in Table 32. Predominant reasons the desired job was hard to find did not change appreciably between ten and fifteen years after graduation, nor are the reasons very different by type of program. Half the reasons offered at ten years, and over 40% given at fifteen years, after graduation were hours of employment, salary, or a combination of hours and salary. Rather than suggesting that specific jobs were unavailable, these responses lead to the conclusion that conditions of employment were unacceptable. A small proportion of diploma and baccalaureate nurses replied that they could have had the job they were seeking, but for personal reasons decided against taking it.

Between ten and fifteen years after graduation, the proportions who could not find a specific clinical area or position increased among graduates of all three programs, amounting to about three out of ten reasons offered at the later time period. Some nurses mentioned that a preferred job was not accessible in the particular area where they lived. The largest group who named geographic area as a reason was baccalaureate graduates at the

## Table 31. Ease of Finding Desired Job and Year Last Looked for Employment, by Type of Program

| Ease of Finding Desired Job | Year Last Looked | | | | |
|---|---|---|---|---|---|
| | 1964-1967 % | 1968-1971 % | 1972-1975 % | 1976-1979 % | 1980-1981 % |
| **Associate Degree** | | | | | |
| Easy to find | 86.5 | 79.3 | 74.4 | 45.5 | na [1] |
| Somewhat difficult | 8.7 | 15.5 | 16.3 | 26.0 | na |
| Very difficult | 0.8 | 5.2 | 8.5 | 24.0 | na |
| No response | 4.0 | 0.0 | 0.8 | 4.5 | na |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | |
| N= | 126 | 116 | 129 | 292 | |
| **Diploma** | | | | | |
| Easy to find | 88.8 | 75.4 | 61.0 | 54.4 | 40.6 |
| Somewhat difficult | 7.5 | 17.5 | 22.8 | 22.8 | 26.7 |
| Very difficult | 1.9 | 5.1 | 13.3 | 20.2 | 32.3 |
| No response | 1.8 | 2.0 | 2.9 | 2.6 | 0.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 268 | 297 | 377 | 728 | 229 |
| **Baccalaureate** | | | | | |
| Easy to find | 81.7 | 69.6 | 59.4 | 51.7 | 39.1 |
| Somewhat difficult | 11.9 | 21.7 | 26.4 | 26.5 | 23.0 |
| Very difficult | 5.5 | 7.1 | 11.2 | 19.6 | 34.8 |
| No response | 0.9 | 1.6 | 3.0 | 2.2 | 3.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 109 | 184 | 197 | 317 | 256 |

[1] Not applicable: associate degree 15-year data collected 1979.

## Table 32. Reasons Why Desired Job Was Difficult to Find at Ten and Fifteen Years after Graduation, by Type of Program

| Reason(s) Job was Difficult to Find | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Ten Years % | Fifteen Years % | Ten Years % | Fifteen Years % | Ten Years % | Fifteen Years % |
| Hours | 43.1 | 25.5 | 50.5 | 37.5 | 33.8 | 29.1 |
| Salary | 5.7 | 6.8 | 4.5 | 5.8 | 6.3 | 5.3 |
| Hours and salary | 9.5 | 8.2 | 6.1 | 6.4 | 7.4 | 6.8 |
| Personal choice | 0.0 | 0.0 | 0.7 | 2.6 | 2.2 | 3.5 |
| Clinical area/position | 22.1 | 31.4 | 16.5 | 27.9 | 23.2 | 33.5 |
| Geographic area | 5.7 | 2.3 | 2.9 | 1.9 | 9.7 | 4.4 |
| Type of basic education | 2.7 | 3.2 | 1.5 | 1.7 | 2.0 | 0.7 |
| No openings | 7.6 | 5.9 | 10.3 | 5.9 | 11.2 | 5.3 |
| Other combinations | 10.3 | 21.8 | 9.4 | 17.1 | 10.0 | 16.7 |
| N [1]= | 262 | 220 | 853 | 691 | 538 | 454 |

[1] Multiple response possible. Percentages based on N.

ten-year period, being 9.7%, but the proportion decreased between the two data collections. Smaller proportions, 3% or less from each group, thought their prospective employers discriminated against them because of their type of basic nursing program.

Finally, some indicated that there were no openings at the time they looked for work; these proportions also decreased between ten and fifteen years after graduation, to a range of 5.3% for the baccalaureate to almost 6% of the other two groups at the final time period. A variety of other responses were given, and as well a small group checked all of the reasons mentioned above. Other reasons included transportation, child care difficulties, being away from nursing too long, professional qualifications as related to available position, and specific policies of a potential employer that were unsuitable to the nurses.

## SUMMARY

Although labor force participation after graduation was somewhat different by type of nursing program, most of the differences are attributable to the characteristics of the women who attended the three programs. The associate degree nurses had the highest proportions with continuous work histories and the highest proportions working in nursing at the five- and ten-year intervals, but by fifteen years after graduation, the proportion working had leveled off.

Work in nursing for diploma and baccalaureate graduates, which had dropped sharply between one and five years after graduation, increased at the fifteen-year period. A sizable proportion of these nurses worked part time at each study interval.

Single, formerly married, and married women without children were generally employed in nursing at all time periods. Among married women, employment was influenced by the number and ages of their children and the social index position of their husbands. Over two-thirds of the mothers of school-age children were in the labor force ten and fifteen years after graduation. More baccalaureate graduates were married to men with high-income potential than were graduates of the other two programs. Married women whose husbands had the higher social index positions and therefore higher incomes worked in lower proportions than did other married nurses. Some in non-nursing employment were educated for another type of work; they frequently stated that earnings were better in non-nursing employment or that they had lost interest in nursing. A high proportion of the women who were not working as well as those in non-nursing employment stated they could not find the hours of nursing work suitable for them.

Most formerly married women were working to support themselves and their families, but the working married women were generally secondary wage earners in the family. Married women working full time reported higher

annual family incomes than did any other subgroup in this study. Unless their children were adults, most of the working mothers had to make more than one type of arrangement for child care during their working hours.

Employment in nursing was usually available to the nurses in this study, although the particular job they wanted was sometimes difficult to find. Unavailability of the preferred job was related more frequently to conditions of employment, that is, hours or salary, than to an absence of jobs.

# chapter 3. employer and position in nursing

At each time interval of the study respondents who were working in nursing reported type of employer and position. There was some variation among time intervals and by type of basic nursing program. In addition, the number of employers during the fifteen years since graduation was reported. This number was affected by the total amount of time in the labor force as well as by marital status, geographic mobility, and position. For the total cohort from each type of nursing education program, almost 13% of the associate degree, 11% of the diploma, and 8% of the baccalaureate graduates reported one employer during the fifteen years (Table 33). A quarter of the baccalaureate group reported six or more employers, as contrasted with 19% and slightly over 20% for the associate degree and diploma groups respectively.

**Table 33. Number of Nursing Employers during Fifteen Years since Graduation, by Type of Program**

| Number of Employers | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| One | 12.8 | 10.9 | 7.6 |
| Two | 18.5 | 18.1 | 16.0 |
| Three | 18.8 | 20.3 | 17.2 |
| Four | 16.4 | 17.4 | 17.6 |
| Five | 11.4 | 12.2 | 15.3 |
| Six or more | 19.1 | 20.5 | 25.0 |
| No response | 3.0 | 0.6 | 1.3 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 782 | 2,111 | 1,156 |

Over a fifth of the women who reported only one nursing employer had worked less than five of the fifteen years since graduation (Table 34). Among the women who had been employed in nursing the entire fifteen years, 19% of the associate degree graduates, almost 16% of the diploma graduates, and 8.2% of the baccalaureate graduates reported having had one employer. The higher proportion of associate degree nurses reporting only one employer is related to the married women in this group who had continuous work histories.

**Table 34. Number of Nursing Employers of Women, by Years Worked since Graduation and Type of Program**

| Number of Employers | Years Worked since Graduation | | | |
|---|---|---|---|---|
| | All 15 % | 10-14 % | 5-9 % | Less than 5 % |
| **Associate Degree** | | | | |
| One | 19.0 | 7.4 | 6.6 | 22.2 |
| Two-four | 53.0 | 52.2 | 63.5 | 65.4 |
| Five or more | 28.0 | 40.4 | 29.9 | 12.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 232 | 272 | 137 | 81 |
| **Diploma** | | | | |
| One | 15.7 | 5.0 | 8.3 | 23.1 |
| Two-four | 54.2 | 51.5 | 60.5 | 69.5 |
| Five or more | 30.1 | 43.5 | 31.2 | 7.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 574 | 837 | 397 | 269 |
| **Baccalaureate** | | | | |
| One | 8.2 | 1.8 | 4.4 | 23.2 |
| Two-four | 49.4 | 40.3 | 57.4 | 68.2 |
| Five or more | 42.4 | 57.9 | 38.2 | 8.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 255 | 387 | 293 | 198 |

Table 35 describes the number of employers, the years worked since graduation, and the marital status of women respondents by type of program. It illustrates that much of the variation by type of program in number of employers is seen among married women who had worked in nursing ten or more of the years since graduation. Among this group, almost 13% of the associate degree, 9% of the diploma, and about 4% of the baccalaureate group reported having had one employer. More than half of the baccalaureate-prepared married women working ten years or more had five or more employers. Among all graduates of the three nursing education programs who were not married and who had worked ten or more years since

**Table 35. Number of Nursing Employers of Women, by Marital Status and Years Worked at Fifteen Years since Graduation and Type of Program**

| Number of Employers | Worked Ten Years or More | | Worked Less than Ten Years | |
|---|---|---|---|---|
| | Not Married [1] % | Married % | Not Married [1] % | Married % |
| **Associate Degree** | | | | |
| One | 8.6 | 12.6 | (1) | 14.8 |
| Two-four | 51.3 | 51.8 | (7) | 65.9 |
| Five or more | 40.1 | 35.6 | (3) | 19.3 |
| Total | 100.0 | 100.0 | | 100.0 |
| N= | 152 | 388 | (11) | 176 |
| **Diploma** | | | | |
| One | 11.6 | 8.9 | (5) | 14.1 |
| Two-four | 44.2 | 54.3 | (15) | 64.9 |
| Five or more | 44.2 | 36.8 | (11) | 21.0 |
| Total | 100.0 | 100.0 | | 100.0 |
| N= | 249 | 1,154 | (31) | 633 |
| **Baccalaureate** | | | | |
| One | 6.5 | 3.9 | (2) | 13.5 |
| Two-four | 38.8 | 44.2 | (19) | 65.8 |
| Five or more | 54.7 | 51.9 | (11) | 20.7 |
| Total | 100.0 | 100.0 | | 100.0 |
| N= | 170 | 520 | (32) | 401 |

[1] Includes single and formerly married women.

graduation, there was little proportional difference in the number of employers reported. Very few of this latter group had worked less than ten years since graduation.

A factor which probably contributes to the variation in number of employers reported is the difference in geographic mobility reported by the three groups of graduates (described in Chapter 5). Baccalaureate graduates were the most likely to change location and, therefore, if working in nursing, would probably have a higher number of employers. Table 36 shows the number of employers of nurses from each of the three programs who reported having working as a registered nurse in one state. The proportions are strik-

**Table 36. Number of Employers during Fifteen Years since Graduation of Women Who Worked as Registered Nurses in One State, by Type of Program**

| Number of Employers | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| One | 19.7 | 20.9 | 18.0 |
| Two-four | 62.8 | 62.5 | 64.0 |
| Five or more | 17.5 | 16.6 | 18.0 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 452 | 1,064 | 451 |

**Table 37. Employer of Those Working in Nursing, by Time after Graduation and Type of Program [1]**

| Employer | One Year % | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|---|
| **Associate Degree** | | | | |
| Hospital | 87.1 | 72.6 | 63.2 | 56.0 |
| Nursing home | 1.3 | 3.3 | 5.1 | 4.7 |
| Public health agency | 1.7 | 4.3 | 5.9 | 7.7 |
| School, public or private | 0.5 | 1.9 | 3.6 | 3.4 |
| School of nursing | 0.2 | 2.4 | 3.4 | 4.7 |
| Industry | 0.9 | 1.3 | 1.2 | 2.5 |
| Private Patient | 1.6 | 2.1 | 2.0 | 3.2 |
| Doctor or Dentist | 5.2 | 8.2 | 7.0 | 9.8 |
| Other | 0.9 | 1.8 | 4.3 | 5.5 |
| Two employers | 0.6 | 1.9 | 3.9 | 1.7 |
| Ambiguous or no response | 0.0 | 0.1 | 0.5 | 0.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,072 | 829 | 646 | 530 |
| **Diploma** | | | | |
| Hospital | 84.3 | 74.1 | 64.3 | 56.6 |
| Nursing home | 0.8 | 4.3 | 6.3 | 7.4 |
| Public health agency | 1.7 | 2.1 | 2.7 | 4.4 |
| School, public or private | 0.9 | 1.4 | 2.1 | 3.8 |
| School of nursing | 0.9 | 3.0 | 3.4 | 3.4 |
| Industry | 0.8 | 2.0 | 2.0 | 2.7 |
| Private Patient | 0.9 | 1.7 | 2.5 | 1.8 |
| Doctor or Dentist | 5.1 | 7.0 | 7.3 | 9.1 |
| Other | 3.7 | 3.3 | 5.3 | 6.2 |
| Two employers | 1.0 | 1.0 | 3.6 | 4.0 |
| Ambiguous or no response | 0.0 | 0.1 | 0.6 | 0.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 3,172 | 2,228 | 1,908 | 1,462 |
| **Baccalaureate** | | | | |
| Hospital | 65.9 | 51.0 | 42.3 | 38.7 |
| Nursing home | 0.3 | 1.9 | 4.0 | 4.4 |
| Public health agency | 12.9 | 13.2 | 10.1 | 9.5 |
| School, public or private | 3.5 | 5.0 | 6.0 | 7.7 |
| School of nursing | 4.0 | 12.9 | 15.0 | 13.9 |
| Industry | 0.5 | 1.0 | 1.5 | 1.2 |
| Private Patient | 0.3 | 2.0 | 1.9 | 1.1 |
| Doctor or Dentist | 2.3 | 4.7 | 5.9 | 6.4 |
| Other | 9.0 | 5.8 | 6.9 | 10.1 |
| Two employers | 1.1 | 2.5 | 5.5 | 5.6 |
| Ambiguous or no response | 0.1 | 0.0 | 0.9 | 1.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,553 | 1,023 | 914 | 749 |

[1] Excludes not working and not working in nursing.

ingly similar for graduates of all three nursing programs when employment as a registered nurse was confined to one state.

Newly graduated registered nurses usually work in hospitals, but as the time after graduation increased lower proportions of the nurses in this study

were employed by hospitals (Table 37). By fifteen years after graduation 56% of the associate degree and 57% of the diploma nurses worked in hospitals, as did 38.7% of the baccalaureate group. At five years after graduation almost half of the baccalaureate nurses were working for employers other than hospitals. At all time periods the baccalaureate nurses reporting working in public health agencies and schools of nursing in higher proportions than did graduates of the other two programs. However, proportions reporting these two employers increased among associate degree and diploma graduates as the time after graduation increased. Most of the respondents employed by schools of nursng had continued their nursing education beyond the basic credential.

As shown in Table 38, about 76% of the baccalaureate nurses in this study were in staff positions one year after graduation, as were over 81% of the other two groups. This proportion decreased at each subsequent data collection, amounting to 41.5% associate degree, 47.4% diploma, and 29.2% baccalaureate fifteen years after graduation. There were compensatory increases in the proportions reporting all other positions at each interval. Fifteen years after graduation proportions ranging from 11.3% (baccalaureate) to almost 15% (associate degree) were head nurses; almost 9% of the baccalaureate, 8% of the associate degree, and 6% of the diploma nurses were administrators; and 18.6% of the baccalaureate, 7.2% of the associate degree, and 5.6% of the diploma graduates were teachers of nursing. The proportion of teachers of nursing is slightly higher than the proportion employed by schools of nursing because the position title "teacher" includes teachers of nursing in all employment settings, including inservice instructors in hospitals.

Extended role positions, which include clinical specialist and nurse practitioners, were nonexistent one year after these nurses' graduation, but by fifteen years later extended role included 9.1% of the baccalaureate, 4.6% of the diploma, and 3.6% of the associate degree nurses.

Employment setting and position were not only related to time after graduation, but also to full- and part-time work (Table 39). Nurses working part time were most often in hospital staff positions on general medical-surgical units. A sizable proportion of part-timers, especially associate degree (16.6%) and diploma (10.7%) graduates were working in doctor's or dentist's offices. Employment in public health agencies or in schools of nursing was usually full-time work. Nurses working full time fifteen years after graduation generally were head nurses, supervisors, or administrators. These three positions totaled 45.7% of the associate degree, 37.7% of the diploma, and 35.4% of the baccalaureate nurses working full time. Almost 24% of the baccalaureate graduates in full-time employment were in teaching positions fifteen years after graduation.

Associate degree graduates in higher-level positions most often (42.9%) reported having had one or two employers since graduation. Diploma nurses were just as likely to have had few or several employers, and there was little

## Table 38. Nursing Position, by Time after Graduation and Type of Program [1]

| Position | One Year % | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|---|
| **Associate Degree** | | | | |
| Staff Nurse | 82.2 | 59.0 | 42.9 | 41.5 |
| Head nurse | 7.0 | 17.1 | 19.0 | 14.9 |
| Supervisor | 1.6 | 6.4 | 8.0 | 9.4 |
| Teacher of nursing | 0.5 | 4.0 | 7.1 | 7.2 |
| Administrator | 0.3 | 1.6 | 5.3 | 7.7 |
| Office nurse | 4.4 | 4.6 | 4.5 | 3.6 |
| Extended role | 0.0 | 0.1 | 2.5 | 3.6 |
| Other | 2.8 | 4.7 | 5.4 | 8.1 |
| Two positions | 1.3 | 2.0 | 4.9 | 2.5 |
| No response | 0.0 | 0.5 | 0.3 | 1.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,072 | 829 | 646 | 530 |
| **Diploma** | | | | |
| Staff Nurse | 81.5 | 62.5 | 48.2 | 47.4 |
| Head nurse | 8.9 | 15.8 | 16.9 | 12.9 |
| Supervisor | 1.3 | 5.3 | 8.0 | 8.3 |
| Teacher of nursing | 1.1 | 4.6 | 5.5 | 5.6 |
| Administrator | 0.0 | 1.2 | 4.1 | 6.0 |
| Office nurse | 3.6 | 4.0 | 3.7 | 4.0 |
| Extended role | 0.0 | 0.2 | 3.5 | 4.6 |
| Other | 2.4 | 4.9 | 6.7 | 7.2 |
| Two positions | 1.1 | 1.0 | 2.7 | 3.5 |
| No response | 0.1 | 0.4 | 0.6 | 0.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 3,172 | 2,228 | 1,908 | 1,462 |
| **Baccalaureate** | | | | |
| Staff Nurse | 75.7 | 45.5 | 34.4 | 29.2 |
| Head nurse | 10.6 | 12.3 | 10.5 | 11.3 |
| Supervisor | 1.3 | 5.0 | 6.7 | 7.5 |
| Teacher of nursing | 5.4 | 16.2 | 19.0 | 18.6 |
| Administrator | 0.1 | 4.5 | 7.1 | 8.8 |
| Office nurse | 1.1 | 2.4 | 2.6 | 2.7 |
| Extended role | 0.0 | 3.8 | 6.2 | 9.1 |
| Other | 4.0 | 6.7 | 7.6 | 6.9 |
| Two positions | 1.6 | 3.3 | 5.1 | 4.1 |
| No response | 0.2 | 0.2 | 0.7 | 1.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,553 | 1,023 | 914 | 749 |

[1] Excludes not working and not working in nursing.

**Table 39. Clinical Field, Employer, and Position of Women Working Full or Part Time at Fifteen Years after Graduation, by Type of Program [1]**

| Clinical Field | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Full Time % | Part Time % | Full Time % | Part Time % | Full Time % | Part Time % |
| General med./surg. | 21.5 | 30.6 | 25.1 | 35.7 | 18.9 | 29.8 |
| Acutely ill | 9.8 | 10.9 | 7.9 | 7.7 | 5.3 | 8.6 |
| Maternal/child | 10.4 | 15.5 | 11.1 | 14.2 | 17.0 | 14.6 |
| Psychiatry | 9.4 | 1.6 | 7.3 | 3.2 | 8.3 | 7.3 |
| Public health | 9.4 | 4.1 | 7.7 | 3.6 | 17.5 | 10.3 |
| Surgical specialty | 7.5 | 6.2 | 8.6 | 4.8 | 2.5 | 1.3 |
| Other specialty | 20.2 | 23.8 | 22.7 | 22.8 | 13.8 | 16.2 |
| Functional area | 7.2 | 1.6 | 5.0 | 2.3 | 11.3 | 4.0 |
| Two clinical areas | 3.6 | 5.7 | 3.8 | 5.3 | 4.1 | 5.0 |
| No response | 1.0 | 0.0 | 0.8 | 0.4 | 1.3 | 2.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 307 | 193 | 755 | 692 | 435 | 302 |
| **Employer** | | | | | | |
| Hospital | 56.0 | 53.4 | 55.2 | 58.2 | 36.6 | 42.7 |
| Nursing home | 4.6 | 5.2 | 5.4 | 9.7 | 2.8 | 6.3 |
| Public health agency | 13.4 | 8.3 | 11.0 | 5.4 | 19.5 | 13.9 |
| School of nursing | 6.8 | 1.5 | 5.3 | 1.3 | 18.2 | 7.9 |
| Doctor/Dentist | 6.5 | 16.6 | 7.5 | 10.7 | 4.1 | 9.9 |
| Other | 9.4 | 13.5 | 11.7 | 9.3 | 11.7 | 12.9 |
| Two employers | 2.0 | 1.5 | 2.9 | 5.3 | 5.5 | 5.6 |
| No response | 1.3 | 0.0 | 0.9 | 0.1 | 1.6 | 0.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 307 | 193 | 755 | 692 | 435 | 302 |
| **Position** | | | | | | |
| Staff nurse | 28.7 | 62.2 | 33.1 | 63.6 | 17.5 | 46.0 |
| Head nurse | 21.2 | 6.2 | 16.6 | 9.2 | 13.3 | 8.6 |
| Supervisor | 13.4 | 3.6 | 11.3 | 4.8 | 9.4 | 5.0 |
| Administrator | 11.1 | 1.6 | 9.8 | 1.6 | 12.7 | 3.3 |
| Teacher | 9.1 | 4.7 | 7.7 | 3.2 | 23.5 | 12.3 |
| Extended role | 3.6 | 4.1 | 6.5 | 2.6 | 10.8 | 7.0 |
| Office nurse | 2.9 | 5.2 | 2.9 | 5.3 | 1.1 | 5.0 |
| Other | 6.5 | 8.8 | 7.9 | 6.1 | 6.0 | 7.6 |
| Two positions | 2.3 | 2.1 | 3.7 | 3.3 | 3.9 | 3.6 |
| No response | 1.2 | 1.5 | 0.6 | 0.3 | 1.8 | 1.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 307 | 193 | 755 | 692 | 435 | 302 |

[1] Excludes those employed in nursing who did not specify full or part time

difference in the number of employers reported by baccalaureate graduates whether they were staff nurses or in higher-level positions (Table 40). The assumption can be made that it is not the position or the type of basic nursing education that influences the number of employers, but some other characteristic of these nurses. The stability of the associate degree group can again be linked to its component of older women, who apparently made few changes in their nursing careers and place of residence, in contrast to the younger, more geographically mobile women, especially among the baccalaureate group.

**Table 40. Number of Employers during Fifteen Years since Graduation of Women, by Position and Type of Program**

| Number of Employers | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Staff Nurse % | Higher Level [1] % | Staff Nurse % | Higher Level [1] % | Staff Nurse % | Higher Level [1] % |
| One-two | 30.2 | 42.9 | 26.6 | 30.7 | 14.3 | 22.5 |
| Three-four | 39.1 | 33.5 | 38.9 | 37.3 | 39.2 | 31.4 |
| Five or more | 30.7 | 23.6 | 34.5 | 32.0 | 46.5 | 46.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 212 | 161 | 689 | 391 | 217 | 204 |

[1] Head nurse, supervisor, and administrator.

## SUMMARY

During the first fifteen years of their careers, graduates of the three registered nurse programs were different in the number of employers reported. These differences, however, are probably related to characteristics of the nurses rather than to type of education; from the statistics, one cannot infer that one group changes employer more frequently than another. The number of employers is influenced by the total number of years in the labor force, marital status, and geographic mobility.

Over the years of the study, graduates of all three programs tended to move away from hospital employment, and this was most evident among the baccalaureate nurses. Nurses remaining in hospital work, and employed full time fifteen years after graduation, very frequently held head nurse, supervisory, or administrative positions. A high proportion of the baccalaureate group were working in nursing education.

# chapter 4. education since graduation

Education beyond the basic nursing program, which is required for some positions in nursing, has been encouraged by the profession. By fifteen years after graduation over 23% of the associate degree and almost 16% of the diploma graduates had completed a baccalaureate degree, and 25% of the baccalaureate graduates had completed a master's degree (Table 41). These proportions are higher than proportions reported in other national studies of registered nurses.[1] The RN Inventories and Sample Surveys include registered nurses who graduated both before and after the cohorts in this study. It is possible that a greater proportion of nurses graduating during the sixties and later continued their education than did nurses who had completed their basic program prior to this time.[2]

Of the participants in this study who had completed the next higher degree by the final data collection, 61% of the associate degree and diploma and over 76% of the baccalaureate group had a nursing major. The others had a degree in a major other than nursing and which sometimes prepared the individual for another profession. Fourteen of the 41 men had earned a degree beyond that granted by their basic nursing program. In addition to completing the baccalaureate degree, about 7% of the associate degree and 4% of the diploma cohort had also completed a master's degree. Less than one percent of the baccalaureate graduates had a doctoral degree, more of which were in non-nursing disciplines than in nursing.

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[1]The studies are: Duane C. Schulte, *Inventory of Registered Nurses, 1977-78* (Kansas City, MO: American Nurses' Association, 1981), p. 17; and U.S. Department of Health and Human Services, PHS, HRA, BHS, Division of Health Professions Analysis. *The Registered Nurse Population, An Overview, from National Sample Survey of Registered Nurses, November 1980.* Report No. 82-5 (DHHS, June 1982), p. 11.

[2]Lucille Knopf and John C. Vaughn, *Work Life Behavior of Registered Nurses* (Springfield VA: National Technical Information Service, 1979), p. 59.

**Table 41. Completion of and Enrollment for Next Higher Degree at Five, Ten, and Fifteen Years after Graduation, by Type of Original Nursing Program**

| Degree earned/Enrollment | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|
| **Associate Degree** | | | |
| Baccalaureate in nursing | 5.6 | 10.3 | 14.2 |
| Baccalaureate not in nursing | 2.1 | 6.3 | 9.1 |
| Enrolled, baccalaureate in nursing [1] | 4.3 | 4.4 | 4.9 |
| Enrolled, baccalaureate not in nursing [1] | 4.6 | 3.3 | 2.6 |
| No baccalaureate or enrollment | 83.4 | 75.7 | 69.2 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 1,103 | 956 | 782 |
| **Diploma** | | | |
| Baccalaureate in nursing | 4.4 | 7.0 | 9.6 |
| Baccalaureate not in nursing | 1.2 | 3.3 | 6.0 |
| Enrolled, baccalaureate in nursing [1] | 4.1 | 4.1 | 6.3 |
| Enrolled, baccalaureate not in nursing [1] | 3.2 | 2.5 | 4.0 |
| No baccalaureate or enrollment | 87.1 | 83.1 | 74.1 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 3,275 | 2,972 | 2,111 |
| **Baccalaureate** | | | |
| Master's in nursing | 8.1 | 14.5 | 19.1 |
| Master's not in nursing | 0.7 | 3.6 | 5.9 |
| Enrolled, master's in nursing [1] | 3.8 | 3.9 | 2.7 |
| Enrolled, master's not in nursing [1] | 1.8 | 2.4 | 3.2 |
| No master's or enrollment | 85.5 | 75.6 | 69.1 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 1,650 | 1,528 | 1,156 |

[1] Was enrolled at time questionnaire was returned

Almost all the women who had completed further degrees used multiple methods to finance their education, the most prominent being earnings, which was mentioned by over 63% of the associate degree, almost 62% of the diploma, and about 37% of the baccalaureate group. Over three out of ten nurses had used their own savings, and a substantial group, ranging from 21% of the baccalaureate to 32% of the diploma group, had financial assistance from their families. There was a difference, however, between methods mentioned by the baccalaureate nurses and the other two groups: 45.9% of the baccalaureate nurses had a government fellowship to aid their higher education, but only 9.8% of the associate degree and 15.6% of the diploma nurses received government fellowships (Table 42).

**Table 42. Methods of Financing Education by Women Who Completed Next Higher Degree, by Type of Original Nursing Program**

| Financing Method | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| Government scholarships | 8.6 | 6.3 | 8.5 |
| Government fellowship | 9.8 | 15.6 | 45.9 |
| Nurse Training Act | 8.0 | 8.1 | 17.1 |
| Government loans | 3.4 | 5.3 | 1.4 |
| Veteran-armed forces | 1.7 | 8.4 | 8.2 |
| Scholarship (nongovernment) | 9.8 | 10.3 | 5.0 |
| Personal loan | 9.8 | 12.5 | 6.0 |
| Earnings | 63.2 | 61.6 | 36.7 |
| Savings | 32.2 | 36.9 | 33.8 |
| Family | 25.9 | 31.9 | 21.4 |
| Employer | 9.8 | 14.4 | 8.2 |
| Other | 1.1 | 1.3 | 2.8 |
| N [1] = | 174 | 320 | 281 |

[1] N is the number of women with degree(s) beyond basic nursing program. Multiple response possible: percentages based on N.

Women who were not married, both single and formerly married women, were more likely to have completed another degree than were married women (Table 43). The proportions of unmarried women were about double the proportions of married women completing a nursing degree. However among the married women who had completed a degree, labor force participation was high, with 46.6% of the associate degree, 43.3% of the diploma, and 45.1% of the baccalaureate group working full time in nursing. Proportions ranging from about a fifth of the associate degree to over

**Table 43. Completion of Next Higher Degree and Marital Status of Women at Fifteen Years after Graduation, by Type of Original Nursing Program**

| Completed Degree | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Not Married % | Married % | Not Married % | Married % | Not Married % | Married % |
| In nursing major | 23.3 | 11.8 | 16.3 | 8.4 | 28.2 | 17.0 |
| In non-nursing major | 12.9 | 7.8 | 11.3 | 4.8 | 9.2 | 4.7 |
| None | 63.8 | 80.4 | 72.4 | 86.8 | 62.6 | 78.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N [1] = | 163 | 592 | 282 | 1,808 | 206 | 940 |

[1] Eleven women (one associate degree, 6 diploma, 4 baccalaureate graduates) had completed two degrees of the same academic level; they are included in the nursing major column.

a fourth of the baccalaureate were working part time (Table 44). There is a noticeable difference in the proportions not working between those with and without a degree among the associate degree and baccalaureate married nurses. In the diploma groups percentages not working were about the same for those with and without a degree. It should be noted that the variables marital status, work status, and continued education are interrelated; that is, higher proportions of single and formerly married women were in the labor force at all times of this study and had completed another degree. Motivation for pursuing more education is not ascertainable from the data.

**Table 44. Work Status of Married Women at Fifteen Years after Graduation, by Completion of Next Higher Degree and Type of Original Nursing Program**

| Work Status | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Degree % | No Degree % | Degree % | No Degree % | Degree % | No Degree % |
| Full-time nursing | 46.6 | 29.6 | 43.3 | 27.9 | 45.1 | 25.1 |
| Part-time nursing | 20.7 | 30.3 | 22.3 | 38.4 | 27.9 | 30.6 |
| Nursing hours unknown | 0.9 | 1.3 | 0.0 | 0.1 | 1.0 | 0.7 |
| Not working | 18.1 | 31.7 | 28.5 | 28.3 | 19.1 | 35.9 |
| Non-nursing occupation | 12.9 | 6.9 | 5.9 | 5.3 | 6.9 | 7.7 |
| No response | 0.8 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 116 | 476 | 238 | 1,569 | 204 | 736 |

Completion of another degree made very little difference in the clinical field of these nurses, but there were differences in type of employer and position (Table 45). Nurses with education beyond the first nursing credential were more often employed by schools of nursing and "other" employers (includes industry, the military, free-standing clinics, programs for particular segments of the population) than were nurses without further education. Associate degree and diploma nurses who had earned a baccalaurate were often working in public health agencies. Higher proportions of nurses with further degrees were in administrative positions (16.9%, associate degree; 9.3%, diploma; and 11.5%, baccalaureate) than were those without these degrees. Respondents without additional education were very likely to be staff or head nurses. Somewhat over a fifth of the associate degree and diploma nurses with a baccalaureate degree were teachers of nursing, as were 41.7% of the baccalaureate group who had a master's degree. Extended role positions, which could be either within the hospital or in other agencies, were held by nurses with additional education in higher proportions than by those with basic preparation only. Most of this latter group with extended role positions had completed a certificate program to prepare them for extended practice.

**Table 45. Clinical Field, Employer, and Position of Women, by Completion of Next Higher Degree and Type of Original Nursing Program [1]**

| Clinical Field | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Degree % | No Degree % | Degree % | No Degree % | Degree % | No Degree % |
| General Med./surg. | 26.2 | 24.9 | 27.6 | 30.9 | 25.2 | 23.1 |
| Acutely ill | 11.5 | 9.5 | 6.2 | 8.1 | 3.7 | 8.0 |
| Maternal/child | 6.9 | 14.6 | 12.9 | 12.5 | 19.3 | 14.5 |
| Psychiatry | 8.5 | 5.5 | 9.3 | 4.6 | 14.7 | 5.0 |
| Public health | 10.8 | 6.1 | 8.0 | 5.3 | 11.5 | 15.8 |
| Surgical specialty | 3.1 | 8.5 | 6.7 | 6.8 | 1.8 | 2.3 |
| Other specialty | 12.3 | 24.6 | 13.3 | 24.2 | 6.0 | 18.3 |
| Functional area | 14.6 | 1.8 | 12.0 | 2.2 | 12.4 | 6.3 |
| Two clinical areas | 5.4 | 4.0 | 4.0 | 4.7 | 2.7 | 5.2 |
| No response | 0.7 | 0.5 | 0.0 | 0.6 | 2.7 | 1.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 130 | 378 | 225 | 1,224 | 218 | 524 |
| **Employer** | | | | | | |
| Hospital | 40.0 | 61.1 | 43.6 | 59.1 | 25.7 | 44.7 |
| Nursing home | 3.1 | 5.3 | 3.6 | 8.2 | 0.4 | 5.9 |
| Public health agency | 17.7 | 9.0 | 12.4 | 7.5 | 10.6 | 20.0 |
| School of nursing | 16.9 | 0.5 | 19.1 | 0.5 | 37.2 | 4.2 |
| Doctor/Dentist | 2.3 | 13.0 | 3.1 | 10.1 | 1.3 | 8.6 |
| Other | 13.1 | 9.3 | 12.0 | 10.3 | 15.6 | 11.1 |
| Two employers | 2.3 | 1.6 | 5.3 | 3.8 | 9.2 | 4.2 |
| No response | 4.6 | 0.2 | 0.9 | 0.5 | 0.0 | 1.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 130 | 378 | 225 | 1,224 | 218 | 524 |
| **Position** | | | | | | |
| Staff nurse | 21.5 | 48.9 | 24.9 | 51.9 | 6.4 | 38.9 |
| Head nurse | 10.0 | 17.2 | 8.9 | 13.8 | 3.2 | 14.9 |
| Supervisor | 10.8 | 9.0 | 8.5 | 8.1 | 5.5 | 8.4 |
| Administrator | 16.9 | 4.0 | 9.3 | 5.2 | 11.5 | 7.6 |
| Teacher | 21.5 | 2.4 | 22.2 | 2.5 | 41.7 | 9.2 |
| Extended role | 6.9 | 2.6 | 10.2 | 3.6 | 19.3 | 5.0 |
| Office nurse | 0.8 | 4.8 | 0.0 | 4.8 | 0.5 | 3.6 |
| Other | 7.8 | 7.7 | 8.9 | 6.3 | 5.5 | 7.4 |
| Two positions | 1.5 | 2.4 | 4.4 | 3.3 | 6.4 | 3.1 |
| No response | 2.3 | 1.0 | 2.7 | 0.5 | 0.0 | 1.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 130 | 378 | 225 | 1,224 | 218 | 524 |

[1] Includes all employed in nursing with a degree in nursing or in non-nursing major.

## SUMMARY

Higher proportions of the nurses in this study completed a degree beyond their basic nursing education than has been described in other national studies of nurses. Labor force participation and marital status are related to further education: nurses with more education are very likely to be working and not married.

Differences in employer and position were observed between nurses with and without further education. Nurses with further degrees were more frequently found in teaching, administrative, and extended role positions than were their peers who had not completed a further degree. Generally nurses in this study used many methods to finance their education, with savings and earnings playing an important role. However, a high proportion of baccalaureate nurses had government assistance in the form of a fellowship.

# chapter 5. geographic mobility

Change of residence has an influence not only on continuity of nursing work but also on labor force participation. Several items on the final questionnaire of this study were included to assess geographic mobility during the years since graduation.

The number and location of states in which nurses had been employed is shown in Table 46. Over 60% of the associate degree group, slightly more than half of the diploma, and 39.4% of the baccalaureate nurses had worked in only one state. Among those who had worked in more than one state, these states were more often in separate geographic regions, rather than nearby, indicating that these nurses moved some distance from their former locations. More than one in five of the associate degree, 29.7% of the diploma, and 37.5% of the baccalaureate group had been employed as nurses in different regions of the country. The baccalaureate group also included over 4% who had been employed outside the United States, and a good many of these nurses had been in military service at some point of their careers.

The number of employers reported by the nurses is related to geographic mobility rather than to type of nursing program from which graduated (Table 47). The proportions of number of employers are similar for all three groups when examined by the number of states in which employed, except that very few associate degree nurses had worked in four or more states.

Earlier data from the Career-Pattern Study showed that the reason most frequently mentioned for changing jobs one and five years after graduation was change of residence.[1] This was the time period during which most of

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[1] Lucille Knopf, *RN's One and Five Years After Graduation* (New York: National League for Nursing, 1975), pp. 24-25.

**Table 46. Number and Location of States in Which Employed during Fifteen Years since Graduation, by Type of Program**

| Number of States | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| One | 60.7 | 50.7 | 39.4 |
| Two | 20.8 | 27.2 | 27.2 |
| Three | 9.1 | 11.9 | 15.7 |
| Four or more | 4.9 | 7.0 | 12.2 |
| U.S. and foreign | 1.8 | 2.1 | 4.4 |
| No response | 2.7 | 1.1 | 1.1 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 782 | 2,111 | 1,156 |

| Location of States | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| Same state | 60.7 | 50.7 | 39.4 |
| Adjacent | 6.0 | 8.6 | 8.3 |
| Same region [1] | 8.3 | 7.8 | 9.3 |
| Different region [1] | 20.5 | 29.7 | 37.5 |
| U.S. and foreign | 1.8 | 2.1 | 4.4 |
| No response | 2.7 | 1.1 | 1.1 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 782 | 2,111 | 1,156 |

[1] Regions distinguished by NLN are: Region I (North Atlantic)–Connecticut, Delaware, District of Columbia, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; Region II (Midwest)–Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; Region III (Southern)–Alabama, Arkansas, Canal Zone, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virgin Islands, Virginia, West Virginia; Region IV (Western)–Alaska, Arizona, California, Colorado, Guam, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

the nurses in this study were married. Change of residence was often associated with marriage or changes in husband's work.

There are differences among the three groups of graduates, however, in geographic mobility, with the baccalaureate group being the most mobile (Table 48). Slightly more than 10% of the associate degree group reported that they had not moved during the entire fifteen years since graduation, but only 2.7% of the diploma and 1.7% of the baccalaureate participants gave this response. In contrast baccalaureate graduates were most likely to report moves both within and between states or moves outside the United States, proportions being 46.4% and 15.2% respectively.

Comparisons of state of residence with other location variables confirm that the baccalaureate nurses were the most geographically mobile (Table 49). The state addresses given on the questionnaires at ten and fifteen years after graduation were compared, revealing that 17.4% of the baccalaureate group lived in different states. Proportions were lower for the other two groups, constituting 15% of the diploma and 13.6% of the associate degree group. In addition, over seven out of ten associate degree nurses were living in the state where they had attended nursing school, as were almost 62% of the diploma group, but only 47% of the baccalaureate group remained in the state of their basic education program. Data gathered at entrance to nursing school showed that while most associate degree and diploma students were studying nursing in the same state in which they had attended high school, over one out of five baccalaureate nursing students were not.[2]

Furthermore, mobility of the baccalaureate group is attested to by the find-

[2] Lucille Knopf, *From Student to RN* (Bethesda, MD: US Department of Health, Education, and Welfare, 1972), p. 55.

ing that less than two-thirds of them held an RN license in the same state in which they had studied nursing. Almost 79% of the diploma and 84% of the associate degree groups were licensed in the state of their basic nursing education. During the five years preceding the final data collection, diploma graduates who were not married changed residence in slightly higher proportions than did married diploma nurses; but among the other two groups, marital status at fifteen years after graduation appeared to have no effect on the likelihood of the nurses' moving during these particular years (Table 50).

Work status fifteen years after graduation and total years worked were related to both number of residence changes and whether residence changed within one state or to different states. Married women who had moved two or more times were less likely to be working full time than those who had not moved or only moved once. Those who moved to different states reported not working in proportions ranging from 31.7% (diploma) to 36.4% (baccalaureate) (Tables 51, 51a). These percentages of married women not working are higher than the proportion of all married women out of the labor force as described earlier in Table 16, and higher than for women who had moved within the same state. Many of the latter residence changes were local moves. Continuity of work in nursing among married women was substantially affected by changes of residence. Small proportions of married women who had moved to different states were employed in nursing for the entire fifteen years since graduation, being 17.6% of the associate degree, 16.2% of the diploma, and 13.6% of the baccalaureate graduates (Tables 52, 52a). However, more than a third of the same group had worked between ten and fourteen of the fifteen years. The highest proportion of married women who worked continuously and had no or one residence change since graduation was among the associate degrees nurses.

## SUMMARY

Residence changes are associated with work status and total number of years employed in nursing for all three groups of graduates. The baccalaureate graduates appeared to be the most geographically mobile of the nurses in this study. Undetermined by the data is whether the nurses changed location to obtain a specific position or if changes in employer resulted from change of residence. However, it can be assumed that married women did not move for reasons of their nursing careers, since lower proportions who made more than one move or moved between states were working in nursing. No such assumption can be made about the women who were not married. In this study, however, the rate of residence changes within the five years preceding the final data collection was no different for married or unmarried women.

**Table 47. Number of Employers and Number of States in which Women Were Employed as Nurses during the Fifteen Years since Graduation, by Type of Program**

| Number of Employers | One State % | Two or Three States % | Four or More States [1] % |
|---|---|---|---|
| **Associate Degree** | | | |
| One | 19.4 | — | — |
| Two or three | 46.1 | 31.1 | — |
| Four or five | 23.9 | 37.7 | (17) |
| More than five | 8.9 | 29.9 | (32) |
| No response | 1.7 | 1.3 | (2) |
| Total | 100.0 | 100.0 | |
| N= | 460 | 228 | (51) |
| **Diploma** | | | |
| One | 20.8 | — | — |
| Two or three | 48.8 | 31.7 | — |
| Four or five | 22.2 | 40.2 | 38.5 |
| More than five | 8.1 | 27.7 | 61.0 |
| No response | 0.1 | 0.4 | 0.5 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 1,065 | 823 | 187 |
| **Baccalaureate** | | | |
| One | 17.8 | — | — |
| Two or three | 48.7 | 30.5 | — |
| Four or five | 24.2 | 42.0 | 39.8 |
| More than five | 8.6 | 27.1 | 58.1 |
| No response | 0.7 | 0.4 | 2.1 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 454 | 495 | 191 |

[1] Includes employment outside U.S.

**Table 48. Number of Residential Changes and Change of Area during Fifteen Years since Graduation, by Type of Program**

| Number of Residential Changes | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| None | 10.2 | 2.7 | 1.7 |
| One | 11.0 | 6.8 | 3.5 |
| Two or three | 28.1 | 31.0 | 26.0 |
| Four or five | 23.2 | 28.8 | 28.3 |
| More than five | 27.0 | 30.2 | 39.9 |
| No response | 0.5 | 0.5 | 0.6 |
| Total | 100.0 | 100.0 | |
| N= | 782 | 2,111 | 1,156 |
| **Change of Area** | | | |
| None | 10.2 | 2.7 | 1.7 |
| Same County | 21.7 | 19.9 | 12.4 |
| Same state | 24.6 | 23.3 | 16.4 |
| Between states | 5.5 | 4.4 | 7.6 |
| Both within and between states | 32.2 | 41.5 | 46.4 |
| Within and outside U.S. | 5.1 | 7.6 | 15.2 |
| No response | 0.6 | 0.5 | 0.3 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 782 | 2,111 | 1,156 |

**Table 49. Comparisons of State Addresses of Residence at Ten and Fifteen Years after Graduation, of Nursing School and Residence Fifteen Years after Graduation, and of Nursing School and RN Licensure, by Type of Program**

| State Addresses | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| Residence at 10 and 15 years after graduation | | | |
| Same | 86.4 | 85.0 | 82.6 |
| Different | 13.6 | 15.0 | 17.4 |
| Total | 100.0 | 100.0 | 100.0 |
| N [1] = | 759 | 2,074 | 1,131 |
| Nursing school and residence at 15 years after graduation | | | |
| Same | 72.3 | 61.8 | 47.0 |
| Different | 27.7 | 38.2 | 53.0 |
| Total | 100.0 | 100.0 | 100.0 |
| N = | 782 | 2,111 | 1,156 |
| Nursing school and RN licensure | | | |
| Same | 84.0 | 78.5 | 62.3 |
| Different | 16.0 | 21.5 | 37.7 |
| Total | 100.0 | 100.0 | 100.0 |
| N = | 782 | 2,111 | 1,156 |

[1] Includes only those who returned questionnaires at both time periods.

## Table 50. State Address of Residence at Ten and Fifteen Years after Graduation and Marital Status of Women at Fifteen Years after Graduation, by Type of Program

| State of Residence at Ten and Fifteen Years | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Not Married % | Married % | Not Married % | Married % | Not Married % | Married % |
| Same | 87.2 | 86.1 | 80.2 | 85.7 | 82.3 | 82.5 |
| Different | 12.8 | 13.9 | 19.8 | 14.3 | 17.7 | 17.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N [1] = | 156 | 574 | 273 | 1,779 | 198 | 919 |

[1] Includes only those who returned questionnaires at both ten and fifteen years.

## Table 51. Work Status of Married Women Fifteen Years after Graduation, by Number of Residence Changes and Type of Program

| Work Status | Number of Residence Changes | | | | | |
|---|---|---|---|---|---|---|
| | Associate Degree | | Diploma | | Baccalaureate | |
| | None or One % | Two or More % | None or One % | Two or More % | None or One % | Two or More % |
| Full-time nursing | 41.7 | 30.9 | 31.5 | 29.7 | (16) | 29.3 |
| Part-time nursing | 26.1 | 29.0 | 36.9 | 36.3 | (17) | 29.7 |
| Not working | 25.2 | 29.8 | 25.6 | 28.6 | (11) | 32.5 |
| Non-nursing occupation | 6.1 | 8.6 | 6.0 | 5.3 | (3) | 7.7 |
| Ambiguous response | 0.9 | 1.7 | 0.0 | 0.1 | 0 | 0.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | | 100.0 |
| N= | 115 | 476 | 168 | 1,630 | (47) | 888 |

## Table 51a. Work Status of Married Women Fifteen Years after Graduation, by Type of Residence Change and Type of Program

| Work Status | Type of Residence Change [1] | | | | | |
|---|---|---|---|---|---|---|
| | Associate Degree | | Diploma | | Baccalaureate | |
| | Same State % | Different States [2] % | Same State % | Different States [2] % | Same State % | Different States [2] % |
| Full-time nursing | 33.7 | 27.6 | 33.5 | 26.9 | 33.8 | 27.6 |
| Part-time nursing | 30.5 | 26.8 | 37.0 | 35.6 | 33.1 | 28.7 |
| Not working | 27.5 | 33.7 | 24.4 | 31.7 | 22.3 | 36.4 |
| Non-nursing occupation | 6.9 | 10.0 | 5.1 | 5.6 | 10.1 | 6.5 |
| Ambiguous response | 1.4 | 1.9 | 0.0 | 0.2 | 0.7 | 0.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 276 | 261 | 813 | 945 | 278 | 648 |

[1] Omits no change of residence.

[2] Includes moves outside continental U.S.

## Table 52. Years of Full- and Part-Time Work of Married Women during Fifteen Years since Graduation, by Number of Residence Changes and Type of Program

| Years Worked | Number of Residence Changes | | | | | |
|---|---|---|---|---|---|---|
| | Associate Degree | | Diploma | | Baccalaureate | |
| | None or One % | Two or More % | None or One % | Two or More % | None or One % | Two or More % |
| All 15 | 41.8 | 20.2 | 29.2 | 22.1 | (9) | 16.1 |
| 10-14 | 36.5 | 37.4 | 29.2 | 38.3 | (15) | 33.9 |
| 5-9 | 10.4 | 24.6 | 25.0 | 25.0 | (13) | 28.8 |
| Less than 5 | 8.7 | 14.7 | 14.3 | 14.3 | (9) | 20.3 |
| No response [1] | 2.6 | 3.1 | 2.3 | 0.3 | (1) | 0.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | | 100.0 |
| N= | 115 | 476 | 168 | 1,630 | (47) | 888 |

[1] Includes a small number who never worked as registered nurses.

## Table 52a. Years of Full- and Part-time Work of Married Women during Fifteen years since Graduation, by Type of Residence Change and Type of Program

| Years Worked | Type of Residence Change[2] | | | | | |
|---|---|---|---|---|---|---|
| | Associate Degree | | Diploma | | Baccalaureate | |
| | Same State % | Different States [3] % | Same State % | Different States [3] % | Same State % | Different States [3] % |
| All 15 | 23.9 | 17.6 | 29.4 | 16.2 | 22.7 | 13.6 |
| 10-14 | 42.0 | 34.5 | 36.3 | 39.4 | 31.3 | 34.9 |
| 5-9 | 18.5 | 28.0 | 19.9 | 29.1 | 28.8 | 29.0 |
| Less than 5 | 12.7 | 16.1 | 13.7 | 14.9 | 15.8 | 21.9 |
| No response [1] | 2.9 | 3.8 | 0.7 | 0.4 | 1.4 | 0.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 276 | 261 | 813 | 945 | 278 | 648 |

[1] Includes a small number who never worked as registered nurses.
[2] Omits no residence changes.
[3] Includes moves outside continental U.S.

# chapter 6. professionalism

The reciprocal relationship between workers and work assumes that in recognition of the workers' contribution certain benefits to them ensue. Professional workers like registered nurses contribute knowledge, skills, and judgments which are delivered to clients within acceptable standards of practice. Benefits include not only financial rewards but also satisfaction to both the worker and the recipient of services. All workers assume some responsibility for their work, and the professionals' responsibility usually includes the assumption that skills and standards of practice are maintained at levels agreed upon within the profession. Communication among professionals is institutionalized through the formation of professional societies. For many professions legal definitions of the scope and standard of practice also exist.

Some aspects of the worker-work relationship such as standards of practice cannot be determined through the mechanism of a simple questionnaire, but other aspects such as organizational membership can be.

At each time period in this study, participants were asked if nursing work had met their expectations, if they were licensed as registered nurses, and if they belonged to professional organizations.

Fulfillment of expectations from work in nursing for all time periods is displayed in Table 53. Responses were relatively similar for the three groups of graduates, with positive responses decreasing as the time after graduation lengthened. Generally nursing work had provided personal satisfaction to most, but the proportions who found working conditions and salary satisfactory were lower. Approximately 80% thought nursing work was personally satisfying until the final data collection when the proportions dropped a little to about 78% for associate degree and diploma and 75% for baccalaureate graduates. By the fifteen-year interval only about half of the respondents

## Table 53. Fulfillment of Three Expectations of Nursing Work, by Time after Graduation and Type of Program

| Associate Degree | | | | |
|---|---|---|---|---|
| Expectation | One Years % | Five Years % | Ten Years % | Fifteen Years % |
| Personal satisfaction | | | | |
| Expectations met | 87.1 | 83.0 | 84.2 | 77.5 |
| Expectations not met | 8.6 | 11.1 | 10.8 | 16.4 |
| Other or no response | 4.2 | 5.9 | 5.0 | 6.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,206 | 1,103 | 956 | 782 |
| Working conditions | | | | |
| Expectations met | 63.9 | 52.4 | 61.0 | 50.4 |
| Expectations not met | 29.9 | 37.5 | 30.3 | 39.5 |
| Other or no response | 6.2 | 10.1 | 8.7 | 10.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,206 | 1,103 | 956 | 782 |
| Salary | | | | |
| Expectations met | 56.5 | 62.6 | 63.4 | 48.6 |
| Expectations not met | 35.7 | 29.4 | 30.9 | 44.5 |
| Other or no response | 7.8 | 8.0 | 5.7 | 6.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,206 | 1,103 | 956 | 782 |

| Diploma | | | | |
|---|---|---|---|---|
| Expectation | One Years % | Five Years % | Ten Years % | Fifteen Years % |
| Personal satisfaction | | | | |
| Expectation met | 85.5 | 84.4 | 84.5 | 78.5 |
| Expectations not met | 10.2 | 11.6 | 10.8 | 16.1 |
| Other or no response | 4.3 | 4.0 | 4.7 | 5.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 3,499 | 3,275 | 2,972 | 2,111 |
| Working conditions | | | | |
| Expectations met | 54.0 | 53.1 | 61.1 | 49.6 |
| Expectations not met | 40.0 | 40.4 | 33.9 | 43.7 |
| Other or no response | 6.0 | 6.5 | 5.0 | 6.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 3,499 | 3,275 | 2,972 | 2,111 |
| Salary | | | | |
| Expectations met | 37.2 | 59.8 | 60.5 | 40.8 |
| Expectations not met | 55.4 | 35.0 | 33.0 | 54.8 |
| Other or no response | 7.4 | 5.2 | 6.5 | 4.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 3,499 | 3,275 | 2,972 | 2,111 |

| Baccalaureate | | | | |
|---|---|---|---|---|
| Expectation | One Years % | Five Years % | Ten Years % | Fifteen Years % |
| Personal satisfaction | | | | |
| Expectations met | 77.8 | 81.6 | 80.8 | 74.6 |
| Expectations not met | 15.3 | 14.2 | 14.1 | 20.3 |
| Other or no response | 6.9 | 4.2 | 5.1 | 5.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,736 | 1,650 | 1,528 | 1,156 |
| Working conditions | | | | |
| Expectations met | 56.2 | 53.4 | 61.2 | 53.7 |
| Expectations not met | 36.3 | 40.8 | 31.3 | 40.6 |
| Other or no response | 7.5 | 5.8 | 7.5 | 5.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,736 | 1,650 | 1,528 | 1,156 |
| Salary | | | | |
| Expectations met | 55.7 | 63.3 | 60.8 | 41.9 |
| Expectations not met | 35.3 | 32.5 | 33.5 | 53.7 |
| Other or no response | 9.0 | 4.2 | 5.7 | 4.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,736 | 1,650 | 1,528 | 1,156 |

found that working conditions and less than half, ranging from 41% diploma to 49% of associate degree graduates, found that salary met their expectations. From these responses it can be assumed that dissatisfaction existed among half the nurses concerning salary and working conditions.

Almost all of the nurses in this study maintained a current registered nurse license, but over the years the proportion not licensed did increase, amounting by fifteen years after graduation to 3.5% of the associate degree, 2.5% of the diploma, and 6% of the baccalaureate respondents (Table 54). Although the proportions not licensed represent a small number of individuals, the characteristics of the graduates who did not maintain licensure appeared to differ from the total cohort. The unlicensed graduates were usually married women who had worked in nursing less than five of the fifteen years, and whose family incomes were higher than the total cohort. The proportion of those without RN licenses who responded positively to the item regarding fulfillment of personal satisfaction from nursing work were lower than cohort responses (Table 55).

Identification with nursing as manifested by organizational membership was not outstanding among the nurses in this study. Ten years after gradua-

**Table 54. RN Licensure, by Time after Graduation and Type of Program**

| RN Licensure | One Year % | Five Years % | Ten Years % | Fifteen Years % |
|---|---|---|---|---|
| **Associate Degree** | | | | |
| Licensed | 92.5 | 93.3 | 96.4 | 94.5 |
| Not licensed | 3.2 | 1.3 | 2.4 | 3.5 |
| Inactive [1] | — | — | 0.2 | 0.4 |
| No response | 4.3 | 5.4 | 1.0 | 1.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,026 | 1,103 | 956 | 782 |
| **Diploma** | | | | |
| Licensed | 95.4 | 95.7 | 96.2 | 96.3 |
| Not licensed | 1.5 | 0.5 | 2.3 | 2.5 |
| Inactive [1] | — | — | 0.2 | 0.2 |
| No response | 3.1 | 3.8 | 1.3 | 1.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 3,499 | 3,275 | 2,972 | 2,111 |
| **Baccalaureate** | | | | |
| Licensed | 95.9 | 94.2 | 93.1 | 92.6 |
| Not licensed | 1.2 | 0.4 | 4.8 | 6.0 |
| Inactive [1] | — | — | 0.2 | 0.3 |
| No response | 2.9 | 5.4 | 1.9 | 1.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,736 | 1,650 | 1,528 | 1,156 |

[1] Inactive category added at ten-year interval

**Table 55. Selected Characteristics of Those Not Licensed as Registered Nurses Fifteen Years after Graduation as Compared with Cohort**

| Characteristic | Not Licensed as RN [1] % | Cohort % |
|---|---|---|
| Married women | 94.0 | 82.5 |
| Spouse MD | 18.1 | 6.0 |
| Spouse Social Index I | 27.5 | 15.4 |
| Has children under 6 | 35.6 | 31.6 |
| Annual family income $30,000 or over | 55.0 | 42.5 |
| Worked in nursing less than 5 years | 57.7 | 13.8 |
| Never worked as RN | 7.4 | 0.5 |
| Positive response to expectations: | | |
| Personal satisfaction | 56.4 | 77.2 |
| Salary | 45.0 | 42.6 |
| Working conditions | 48.3 | 50.9 |
| Twenty or over when starting education | 16.8 | 14.3 |
| N= | 149 | 4,049 |

[1] All but one of those not licensed were women.

tion 75% or over did not belong to any professional society, and this proportion increased by fifteen years after graduation (Table 56). Employed nurses held membership in nursing organizations in higher proportions than did those who were not working. When nurses did belong to organizations, at the fifteen-year period, they were just as likely to belong to a nursing specialty organization as they were to hold membership in the American Nurses' Association. A high proportion of diploma graduates, 35%, joined their nursing school alumni association, as did almost 21% of the bac-

**Table 56. Organizational Membership at Ten and Fifteen Years after Graduation, by Type of Program**

| Organization | Associate Degree | | Diploma | | Baccalaureate | |
|---|---|---|---|---|---|---|
| | Ten Years % | Fifteen Years % | Ten Years % | Fifteen Years % | Ten Years % | Fifteen Years % |
| ANA | 21.7 | 15.2 | 13.2 | 11.5 | 24.2 | 20.4 |
| NLN | 3.3 | 4.0 | 1.5 | 2.1 | 3.3 | 4.6 |
| Nursing school alumni | 14.3 | 10.0 | 37.3 | 35.0 | 23.3 | 20.7 |
| Nursing specialty | 8.7 | 15.5 | 9.9 | 17.1 | 9.0 | 18.0 |
| Health organization | 8.1 | 9.5 | 7.8 | 6.8 | 23.3 | 11.2 |
| None | 77.2 | 83.5 | 86.1 | 87.4 | 74.7 | 77.3 |
| N [1]= | 956 | 782 | 2,972 | 2,111 | 1,528 | 1,156 |

[1] Percentages add to more than 100 since some respondents belonged to more than one organization.

calaureate group. Associate degree programs often do not maintan alumni organizations. While the benefits of membership in ANA or a national nursing specialty organization are defined, it is possible that alumni groups range from social groups to structured professional societies.

If membership in the professional organization, in this case the ANA, is considered one index of professional commitment, the nurses in this study would not score very highly. But in this trait they are not different from registered nurses in general. In 1980, it was estimated that approximately 1,660,000 individuals held RN licenses.[1] The ANA membership as of this writing is approximately 164,000, or about 10% of all RNs.[2]

Aspirations about their careers in nursing and actual attainment can be ascertained for the nurses in this study by comparing responses describing employer and position desired at entrance to the nursing program and at graduation with actual positions at the final data collection. At the two earlier time periods the participants were asked to check the type of employer and the position they anticipated by fifteen years after graduation. Tables 57 and 58 describe their responses to the question, and give actual employer and position for all working in nursing and for women who were working full time at the final time period. These tables list the actual options offered on the early questionnaires; although employers of nurses have not changed much during the years of the study, positions available to nurses have. Any checklist developed now would include the option of extended roles.

Even as beginning students, the nurses in this study expected to move away from hospital employment by fifteen years after graduation. By graduation, somewhat over a third of the associate degree and diploma graduates and a fourth of the baccalaureate graduates thought they would be in hospital work fifteen years later. Actual proportions in the fifteen-year data were higher for all three groups. Over a fifth of the associate degree and diploma graduates thought they would be working for doctors or dentists; in this category actual proportions are lower at fifteen years after graduation, being between 9% and 10%. It is significant to note that at entrance to nursing school one out of ten and by graduation almost 17% of baccalaureate students thought they would be employed by schools of nursing. This latter proportion is very close to the actual proportion of women baccalaureate nurses employed full time in schools of nursing, 18.2%. The chief difference in anticipated and actual employer is found for private duty nursing; much higher proportions thought they would be private duty nurses than actually were in this position by fifteen years after graduation. The proportions who said they planned to be self-employed in private duty (Table 57) and the proportions who thought their position would be private duty (Table 58) are

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[1] U.S. Department of Health and Human Services, PHS, HRA, Bureau of Health Professions, Division of Health Professions Analysis, *The Registered Nurse Population: An Overview*, from National Sample Survey of Registered Nurses, November 1980. Report 8, 2-5 (Hyattsville, MD: DHHS, June 1982), p. 2.

[2] Telephone call, American Nurses' Association, December 20, 1982.

## Table 57. Aspiration for Fifteen Years after Graduation at Entrance and Graduation and Actual Employer at Fifteen Years after Graduation, by Type of Program

| Employer | Aspiration | | Employer at Fifteen Years | |
|---|---|---|---|---|
| | Entrance % | Graduation % | All Working in Nursing % | Women Full Time % |
| **Associate Degree** | | | | |
| Hospital | 38.6 | 36.2 | 56.0 | 56.0 |
| Nursing home | 0.9 | 2.2 | 4.7 | 4.6 |
| Public health agency | 3.6 | 6.5 | 7.7 | 9.8 |
| School (school nurse) | 2.0 | 3.6 | 3.4 | 3.6 |
| School of nursing | 7.7 | 9.3 | 4.7 | 6.8 |
| Industry | 1.3 | 2.0 | 2.5 | 2.6 |
| Self-employed (private duty) | 9.8 | 7.0 | 3.2 | 1.0 |
| Doctor or dentist | 16.4 | 20.5 | 9.8 | 6.5 |
| Other | 4.9 | 2.9 | 7.2 [1] | 7.9 [1] |
| No response | 14.8 | 9.8 | 0.8 | 1.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 782 | 782 | 530 | 307 |
| **Diploma** | | | | |
| Hospital | 37.8 | 35.1 | 56.6 | 55.2 |
| Nursing home | 2.3 | 1.3 | 7.4 | 5.4 |
| Public health agency | 4.0 | 5.0 | 4.4 | 6.5 |
| School (school nurse) | 4.1 | 5.0 | 3.8 | 4.5 |
| School of nursing | 5.9 | 9.0 | 3.4 | 5.3 |
| Industry | 1.2 | 3.0 | 2.7 | 3.8 |
| Self-employed (private duty) | 11.9 | 9.5 | 1.8 | 0.8 |
| Doctor or dentist | 15.3 | 21.4 | 9.1 | 7.6 |
| Other | 5.7 | 3.0 | 10.2 [1] | 10.0 [1] |
| No response | 11.8 | 7.7 | 0.6 | 0.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 2,111 | 2,111 | 1,462 | 755 |
| **Baccalaureate** | | | | |
| Hospital | 33.4 | 24.5 | 38.7 | 36.6 |
| Nursing home | 2.1 | 2.0 | 4.4 | 2.8 |
| Public health agency | 5.2 | 15.2 | 9.5 | 10.4 |
| School (school nurse) | 5.1 | 9.8 | 7.7 | 9.2 |
| School of nursing | 10.4 | 16.6 | 13.9 | 18.2 |
| Industry | 2.0 | 1.2 | 1.2 | 1.8 |
| Self-employed (private duty) | 8.6 | 2.8 | 1.1 | 0.0 |
| Doctor or dentist | 13.0 | 9.9 | 6.4 | 4.1 |
| Other | 4.2 | 6.2 | 15.8 [1] | 15.3 [1] |
| No response | 16.0 | 11.8 | 1.3 | 1.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,156 | 1,156 | 749 | 435 |

[1] Includes two employers where neither was designated as primary

## Table 58. Aspiration for Fifteen Years after Graduation at Entrance and Graduation and Actual Position at Fifteen Years after Graduation, by Type of Program

| Position | Aspiration | | Position at Fifteen Years | |
|---|---|---|---|---|
| | Entrance % | Graduation % | All Working in Nursing % | Women Full Time % |
| **Associate Degree** | | | | |
| Staff nurse | 12.5 | 14.2 | 41.5 | 28.7 |
| Private duty | 13.9 | 14.6 | 2.5 | 1.0 |
| Head nurse | 17.0 | 19.6 | 14.9 | 21.2 |
| Supervisor | 12.2 | 10.0 | 9.4 | 13.4 |
| Teacher of nurses | 8.4 | 9.8 | 7.2 | 9.1 |
| Administrator | 5.5 | 3.3 | 7.7 | 11.1 |
| Consultant | 2.6 | 2.3 | 0.2 | 0.3 |
| Researcher | 4.5 | 4.5 | 0.2 | 0.3 |
| Other | 7.7 | 9.0 | 14.9 [1] | 13.7 [1] |
| No response | 15.7 | 12.7 | 1.5 | 1.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 782 | 782 | 530 | 307 |
| **Diploma** | | | | |
| Staff nurse | 14.4 | 17.8 | 47.4 | 33.1 |
| Private duty | 19.5 | 16.7 | 2.1 | 0.9 |
| Head nurse | 16.1 | 17.0 | 12.9 | 16.6 |
| Supervisor | 13.1 | 9.6 | 8.3 | 11.3 |
| Teacher of nurses | 7.2 | 11.2 | 5.6 | 7.7 |
| Administrator | 3.4 | 1.9 | 6.0 | 9.8 |
| Consultant | 2.4 | 1.4 | 0.8 | 1.1 |
| Researcher | 3.9 | 5.3 | 0.3 | 0.5 |
| Other | 6.0 | 10.5 | 16.1 | 18.4 [1] |
| No response | 14.0 | 8.6 | 0.5 | 0.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 2,111 | 2,111 | 1,462 | 755 |
| **Baccalaureate** | | | | |
| Staff nurse | 8.1 | 8.9 | 29.2 | 17.5 |
| Private duty | 13.5 | 5.3 | 0.9 | 0.0 |
| Head nurse | 11.9 | 13.4 | 11.4 | 13.3 |
| Supervisor | 15.7 | 14.6 | 7.5 | 9.4 |
| Teacher of nurses | 11.0 | 17.4 | 18.6 | 23.5 |
| Administrator | 8.0 | 4.5 | 8.8 | 12.7 |
| Consultant | 2.5 | 8.2 | 1.7 | 1.4 |
| Researcher | 5.0 | 5.0 | 0.4 | 0.7 |
| Other | 4.6 | 10.3 | 19.8 [1] | 19.7 [1] |
| No response | 19.7 | 12.4 | 1.7 | 1.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| N= | 1,156 | 1,156 | 749 | 435 |

[1] Includes two positions where neither was designated as primary

different because some respondents apparently thought they would be private duty nurses in a hospital or for a specific physician. There have been many changes in nursing roles since these respondents entered and graduated from nursing; by the time the fifteen-year data was collected, private duty was no longer a major choice.

Noting these findings, that as entering and graduating students many of the participants in this study thought that by fifteen years after graduation they would not be in hospital work, and considering that the actual proportions employed by hospitals decreased at each data collection, it could be assumed that the nurses pursued careers in accordance with their aspirations. The movement away from hospital work may not be an indication of reaction to hospital employment.

The proportions who anticipated the position of head nurse and the proportions who actually held that position at fifteen years after graduation are similar for all three groups of graduates, as are the proportions of associate degree and diploma graduates for the positions of supervisor and teacher of nurses. Higher proportions of baccalaureate nurses were teachers than these nurses had anticipated at the time of graduation. At the fifteen-year interval for all three groups working full time, higher proportions were in staff or administrative positions than the respondents anticipated at the time of graduation.

For the final survey of this study, participants were asked to imagine that they were beginning their education and to decide whether they would again choose nursing and the same type of basic program.

Approximately 43% of the associate degree and diploma respondents felt that they would choose nursing and the same program, but over 60% of the baccalaureate group gave this response (Table 59). More than a quarter of the associate degree and diploma nurses would again choose nursing, but would select a different type of program. Many of this latter group made notations on the questionnaire suggesting that the baccalaureate degree

**Table 59. Choice of Nursing and Type of Program if Starting Education Again, by Type of Program**

| Choice | Associate Degree % | Diploma % | Baccalaureate % |
|---|---|---|---|
| Nursing and same program | 42.6 | 42.7 | 60.4 |
| Nursing, but different program | 25.3 | 26.0 | 1.1 |
| Not nursing, but if so same program | 8.2 | 5.8 | 16.8 |
| Not nursing | 18.7 | 20.5 | 15.8 |
| Undecided | 4.2 | 4.1 | 4.9 |
| No response | 1.0 | 0.9 | 1.0 |
| Total | 100.0 | 100.0 | 100.0 |
| N= | 782 | 2,111 | 1,156 |

was now a necessity for nursing or citing some difficulty they had encountered in obtaining a baccalaureate degree after finishing one of the other programs. Very few baccalaureate graduates said they would choose a different basic program. Over 26% of the associate degree and diploma and about a third of the baccalaureate graduates would not again choose nursing; in the baccalaureate group responses were about equally divided between those who would not choose nursing at all and those who indicated that nursing was not their choice but that if they again decided on nursing they would choose the same type of program. About one in five of the associate degree and diploma groups would not again make the choice of nursing as a career; lower proportions than in the baccalaureate group stated that if they did, however, choose nursing it would be the same type of basic program.

Observing the proportions reporting organizational membership and choice of nursing if starting their education again, it would be possible to assume that the commitment of the study participants to the nursing profession carries some undertones of dissatisfaction. On the other hand, the nurses in this study continued their education, and most frequently this was nursing education, in higher proportions than did nurses in the total population (see Chapter 4).

The high response rate in this study, which was conducted by a professional organization, is also an indicator of commitment to nursing. Therefore, it could be concluded that although some questionnaire items elicited mixed or negative responses, to judge the respondents' attitude toward the profession from these indicators only, overlooks other positive indicators.

## SUMMARY

Although most of the nurses in this study felt that they gained personal satisfaction from their work in nursing, only about half were positive about working conditions or salaries in nursing. Over the years, a small but increasing proportion did not maintain their RN licenses, and those who did not differed from the cohort on some variables.

A minority of nurses in this study belonged to professional organizations. Membership in ANA was proportionaly higher than among the population of registered nurses.

Both as entering and graduating nursing students, many of the participants in this study felt that by fifteen years after graduation they would not be in hospital work and that they would be in positions beyond the staff level. This proved to be true.

High proportions of the nurses in this study thought that if they were starting their education again they would still choose nursing; however, a good many of the associate degree and diploma graduates felt that given another chance they would have chosen a different type of basic program.

# chapter 7. discussion

The Career-Pattern Study has followed the same cohort of nurses, one group from each of the three basic registered nurse programs, through fifteen years after graduation. To reiterate, the broad purposes of the study were: to describe the relationship of the type of nursing education to subsequent employment, the relationship of type of nursing program to occupational goals, and the relationship of marriage and family responsibility to nurses' work lives. It can be stated that many of the differences uncovered among the nurses in this study were related not simply to the type of educational program they attended but also to the characteristics of the individuals attracted to the three programs.[1]

The first year after graduation most of the nurses in this study worked in hospitals, generally as staff nurses. By five years after graduation, about half the baccalaureate graduates were in non-hospital work, with a high proportion being teachers of nursing, demonstrating the impact of type of educational program on subsequent employment. Over the years associate degree and diploma graduates who had continued their education and obtained a baccalaureate degree were found in non-hospital work in higher proportions than those without further education.

The stated occupational goal of a high proportion of the study participants when they entered and when they graduated from nursing school showed that most thought they would not be working for hospitals fifteen years after graduation. However, many had indicated a preference for private duty nursing, which in actuality at the fifteen-year interval was the employment of on-

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[1] Another study purpose was to discover the relationship of biographical characteristics to graduation or withdrawal from the nursing program. These results are published in Lucille Knopf, *Graduation and Withdrawal from RN Programs* (Washington, DC: U.S. Government Printing Office, 1975).

ly a very small proportion of the respondents. During the years of the study nursing changed enough to include a variety of extended roles. By fifteen years after graduation, some nurses from each group of graduates, with the highest proportion being among baccalaureate nurses, named an extended role as their position.

The essential differences discovered among the three groups of nurses in the study relate to biographical characteristics, with marital status and motherhood playing the critical part in understanding labor force participation after graduation. Single and formerly married women and married women without children (of whom there were very few by fifteen years after graduation) were usually working in nursing at all time periods of this study.

Women who studied nursing after becoming wives and mothers had more continuous work years than did any other married women in the study. This group was found among the associate degree participants. Younger single women from all three programs spent time as wives and mothers during the years of the study. These roles were of primary importance to the nurses, especially during the years that their children were preschoolers, when many chose not to be employed outside the home.

Among the young single women, the group attending the baccalaureate program differed from those in the other two programs in parental characteristics; later, differences were also observed in characteristics of the spouses of this group. Baccalaureate nursing students in this study could be described as members of families where a collegiate education was expected. These graduates generally married men in the professions, who earned more than the husbands of other nurses in the study, and whose work included a high degree of geographic mobility. Married nurses whose husbands were at the higher social index levels or whose residence changed between states worked continuously in lower proportions than did other nurses.

There is evidence that by fifteen years after graduation married women with children, who had not been working at earlier time intervals, were returning to nursing work, often part time. By the final data collection most of their children had reached school age. The choice of part-time work may have been affected by the type of child-care provisions available to the mothers. Most of the working mothers indicated that child care was provided by school attendance or by husbands, and often more than one type of care had to be provided if the mother was to be employed.

The variables related to labor force participation—marital status, time of marriage, ages of children, social index position of spouse—are attributable to characteristics of individuals rather than to type of basic nursing program. However, in this study, the individuals who entered nursing did differ on these variables by type of program. If the nurses in this study wanted to work they could find employment in nursing rather easily, but the specific job they wanted might be more difficult to obtain. That specific job often involved undesirable hours of work or too low a salary.

Commitment to the nursing profession might appear low among this group of nurses as viewed by their membership in the professional organization, but would appear high when estimated by the proportion who continued their nursing education. Nurses in general do not join the professional organization in outstanding numbers, but the proportion with more than basic education was exceeded by the participants in this study as compared to all nurses.

By the final data collection, higher proportions of baccalaureate graduates than of other nurses were no longer licensed as registered nurses or were in non-nursing work; however, a small proportion of the cohort gave these responses. The reported annual family incomes of married baccalaureate nurses in this study were higher than for the other two groups, implying less of a financial need for employment and therefore less motivation to maintain licensure.

The reasons nurses from all three programs gave for employment in non-nursing work included not only loss of interest in nursing and the ability to earn more in other types of work, but also a high proportion stated they could not obtain the desired arrangement of working hours in nursing. The implication is that if appropriate hours had been available to them they would be working in nursing. A majority of nurses in this study thought that if they were starting their education over they would still choose nursing; however, over a fourth of the associate degree and diploma group thought they would choose a different type of nursing program.

This study of the career patterns of nurses was started against the background of the nursing "shortage." Over the years of the study up until the present writing, the shortage of nursing diminished as an urgent topic for awhile, only to reappear in recent years.[2]

Statements have been made about the nursing supply and demand which appear to be in conflict: "Assuming even moderate changes occur in the health care delivery system the overall supply of registered nurses will be in balance with requirements over the next decade"[3] "Even the most conservative estimates indicate that a shortage of nurses still exists. Demands for nursing manpower have paralleled the growth in supply."[4] Some observers have attributed the perception of a nursing shortage to inequalities in geographic distribution of nurses. Uneven geographic distribution has been true ever since distributional statistics about nursing have been gathered, with Southern states having the lowest and New England states having the highest nurse-population ratios.[5] Failure to distinguish among nursing roles has confounded conclusions made about nurse shortages;

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[2] "Nursing Shortage—Yes," *American Journal of Nursing*, March 1979, pp. 469-480.

[3] Secretary of Health, Education, and Welfare. *Second Report to The Congress, March 15, 1979. Nurse Training Act of 1975.* DHEW Pub. HRA 79-45. (Hyattsville MD: DHEW, 1979), p. 1.

[4] Jessie M. Scott and Eugene Levine, "Nursing Manpower Analysis: Its Past, Present and Future" in *Health Manpower Information for Policy Guidance*, edited by Dale Heistand and Miriam Ostow. (Cambridge, MA: Ballinger, 1976), p. 35.

[5] American Nurses' Association, *Facts About Nursing 1980-81* (New York: American Journal of Nursing Company, 1981), p. 7.

"There is much evidence to support the claim that maldistribution of nursing supply is more than just a matter of geographic inequities, but more important, a maldistribution of nursing skills."[6]

The complexities of attempting to determine whether or not a nursing shortage exists, as well as perceptions contributing to either conclusion, have been documented in several papers in recent years.[7]

In a family with two wage earners, economic conditions no doubt are related to the employment of the secondary wage earner. Study data show that married women whose husbands were at the lower end of the social index scale used in the study were working in higher proportions than were women whose husbands had higher ratings (and by implication earned higher salaries). In areas of the country where a high proportion of the male labor force is currently unemployed, women are seeking work. A good many nurses have either returned to work in these communities or have increased their hours of work, thereby giving the impression that the shortage of nurses does not exist.[8]

On the other hand, another newspaper article of the same time period comments on the demise of the superwoman of the seventies who was wife, mother, and career woman. Women are opting out of the labor force while their children are young, but most of the women mentioned in this particular article were married to men with high income potential.[9]

It is not the purpose of this discussion to restate what has already been published about whether a nurse shortage exists, but to highlight study findings describing labor force behavior that have a bearing on these broader issues.

The RN Sample Survey of 1980 estimated that 76.6% of all licensed registered nurses were employed in nursing, almost a third of whom were working part time.[10] Fifteen years after graduation, 67.7% of the study participants were in the nursing labor force, and 43% were part-timers.

Hospitals operating on a 24-hour day 365 days a year are the predominant employers of nurses. Service needs can be estimated but completely accurate prediction is probably not possible. The second major employer of nurses in the population, and of 6% of the nurses in this study, was nursing homes and extended care facilities, institutions that may not have to deal with as many unpredictable situations as hospitals, but that nevertheless provide a continuous service.[11]

The largest group of workers in hospitals is the nursing staff, most of

[6] Scott and Levine, "Nursing Manpower Analysis," p. 38.

[7] Walter L. Johnson and John Vaughn, "Supply and Demand Relations and the Shortage of Nurses," *Nursing and Health Care*, November 1982, pp. 497-507, and Michael L. Millman, ed., *Nursing Personnel and the Changing Health Care System* (Cambridge, MA: Ballinger, 1978).

[8] "Tough Times Ease Shortage of Nurses," *Wall Street Journal*, January 17, 1983, pp. 1, 36.

[9] "Mothers Who Shift Back from Jobs to Homemaking," *New York Times*, January 19, 1983, section C, pp. 1, 10.

[10] Division of Health Professions Analysis, *The Registered Nurse Population, An Overview from National Sample Survey of Registered Nurses, November 1980*, Report 82-5 (Hyattsville MD: U.S. Department of Health and Human Services, 1982), p. 3.

[11] *Ibid.*, p. 13.

whom are married women with children and a high percentage of whom prefer part-time work. Matching the need to provide a continuous necessary service with the time and skills available from workers simultaneously fulfilling three roles, of which the paid worker role may be least important, is the crux of the hospital staffing dilemma. Matching institutional needs with worker availability is probably best accomplished at the local, rather than the national, level. The problem of providing continuity of patient care with sensitivity to workers' needs can be exacerbated at time periods such as weekends and major family holidays that are crucial for both the institution and working mothers.

Nurses are well aware of patients' care needs. Not all institutions are aware of nurses' needs. "I have the deep conviction that the primary source of dissatisfaction for staff nurses who are working in hospitals today is the scheduling system, or rather the lack of it," writes a staff education instructor in a hospital.[12]

After child-care responsibilities, one of the predominant reasons why nurses in this study were not working in nursing was the difficulty in finding a job with suitable hours. These findings are corroborated by a study done by a midwestern institution.[13] This local study also discovered that almost all nurses who would consider returning to work were considering part-time employment. The part-time worker is a fact of life in nursing. Productive and creative absorption of these workers into nursing service is necessary. Inpatient institutions with the participation of both full- and part-time nurses are experimenting with nursing care delivery systems and staffing patterns.[14] Equitable solutions can be found.[15] The literature indicates that these solutions are most practical when adapted to the situation of the particular institution or service area, and when all individuals affected by decisions participate, in making them.

Career-Pattern Study data also indicate that the biggest drop in labor force participation comes between one and five years after graduation from nursing school. The specific years are not as important as the fact that this is the time period when most of the nurses in this study married and had their first child. Other findings indicate that among two subgroups, those employed in non-nursing positions fifteen years after graduation and those who had allowed their registered nurse licenses to lapse, high proportions had worked in nursing less than five of the fifteen years since graduation. There is little probability that nurses in these two subgroups will return to nursing work. Other studies have also shown that, the longer away from nursing work, the less likely are nurses to return. The implication of these findings is that every effort should be made by employers of nurses to maintain some contact with

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[12] Fran Cooperrider. "Staff Input in Scheduling Boosts Morale," *Hospitals*, August 1, 1980, pp. 59-61.

[13] Jack M. Newby. "Study Supports Hiring More Part-time RN's," *Hospitals*, September 1, 1980, pp. 71-73.

[14] "Opening Up New Alternatives," *Baylor Progress*, January 1981.

[15] Patricia Eusanio. "Effective Scheduling—The Foundation for Quality Care," *Journal of Nursing Administration*, January 1978, pp. 12-17.

the nurse who may be planning to leave the work force for reasons of marriage or motherhood.

This might involve reevaluating maternity-leave policies and offering even more flexibility in the schedules of mothers with very young children. Child-care centers have often been advocated as means of attracting nurse-mothers into the labor force, and one hospital that created a care center for children between the ages of six weeks and six years found it had a waiting list of pregnant staff members registering unborn children.[16] There is advantage not only to the institution in keeping nurse-mothers on staff but also to the nurse. Unused skills soon become dulled or outdated, often making future return to the work force difficult and stressful for a nurse. There is some indication that marriage and childbearing patterns are changing, with women having a first child at a later age than did the previous generation. If so, women will have already invested several years in their careers and may be concerned about preserving their positions. Institutions with policies that are attractive to working mothers could benefit by arrangements that keep the nurse-mothers in the labor force.

Notwithstanding the fact that the media have recently given the impression that nurses leave the profession in high numbers, no major study has been done to substantiate this conjecture. Only a small number in this study appeared to have left the profession, among them some who had attained educational preparation in another field. As yet unstudied systematically is why and under what circumstances nurses remain in the profession.

Even after fifteen years, most of the nurses in this study resonded positively that nursing met their expectations for personal satisfaction. The attractiveness of nursing is high, and schools of nursing report more than two applicants for every student admitted in the fall of both 1980 and 1981.[17]

Most of the respondents in this study thought that if they were just starting their education they would again choose nursing. The disconcerting fact in this finding is that about a fourth of the diploma and associate degree graduates thought they would choose a different type of nursing program. However, there was no indication that these responses stemmed from innate dissatisfaction with the program they had attended. Rather, unsolicited information added by respondents gave the impression that this came in response to the profession's movement toward the baccalaureate degree as the first-level preparation or because the respondent had experienced difficulties in obtaining a baccalaureate degree after graduating from one of the other programs.

Nevertheless, more nurses in this study had completed a further degree than have nurses in the population.[18] Circumstances motivating these nurses to continue their education are not available from the data. What is available are data showing that nurses who continued their education were very fre-

[16] "On Site Child Care Center Retains, Attracts Nurses," *Hospitals*, August 1, 1980, p. 61.

[17] John C. Vaughn, "Educational Preparation for Nursing—1981" *Nursing and Health Care*, October 1982, pp. 451-452.

[18] Division of Health Professions Analysis, *Registered Nurse Population*, p. 11.

quently single or formerly married women who worked full time and were in higher-level positions than those who had not continued their education.

Most of the associate degree and diploma graduates who completed a baccalaureate degree had financed their education through earnings, savings, and family contributions. On the other hand, over half of the baccalaureate graduates who completed a master's degree reported having a government fellowship or scholarship. Curtailment of government funds could result in lower proportions of baccalaureate graduates seeking graduate degrees. Enrollment in master's programs has steadily increased over the past five years, but full-time enrollments over the same time period have decreased.[19] Nurses financing their own education may very likely attend school part time.

Geographic mobility of the nurses in this study was inversely related to employment in nursing, leading to the conclusion that the nurses did not move for reasons of their own careers. The baccalaureate group had the most and the associate degree group the fewest residence changes. Institutions that recruit nurses on a national basis need to consider this finding. It might be more profitable for institutions to survey the local registered nurse population thoroughly and gear recruiting activities toward this group. If national recruitment is undertaken it should reach the newly graduated nurses, before they marry and have families.

## SUMMARY

This study of nurses representing a cohort from each of the three basic registered nurse programs has described the careers of these nurses through fifteen years after graduation. Many career variables have been demonstrated to be related to the biographical characteristics of the study participants, and biographical characteristics differed by type of educational program. In as much as the nurses in this study are drawn from a specific time period, any generalizations made from the findings of this study would apply only when the biographical characteristics are comparable to the study participants. There is some evidence that characteristics of nursing students and graduates have changed, especially in regard to age.[20] If this is true, then career descriptions for other time periods could be expected to be different from those in the study.

Since societal patterns of labor force participation by women, wives, and mothers are also changing, then changes can also be anticipated in the careers of nurses.

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[19] Vaughn, "Educational Preparation—1981."

[20] Walter L. Johnson, "Supply and Demand for Registered Nurses—Some Observations in Current Picture and Prospects to 1985—Part 2," *Nursing and Health Care*, Septembr 1980, pp. 73-79.

## CONCLUSIONS

1. Evidence from this study and others substantiates that registered nurses who work part time are a high proportion of the labor force. Institutions employing part-time nurses in a productive manner with scheduling that is equitable and predictable may well experience a reliable supply of nurses.

2. It is more advisable to keep nurses in the labor force throughout marriage and motherhood than to try to induce them to return to work after some years out of the labor force. Staying in the work place relatively continuously has advantages for both the institution and the nurses.

3. A small proportion of nurses will probably not continue to work in nursing.

4. Variables related to labor force participation are attributable to characteristics of individuals rather than type of nursing program; however, in this study, the individuals who chose the three registered nurse programs differed in biographical characteristics. There is some evidence that students and graduates of the eighties differ, especially as regards age at entrance, from the nurses in this study. If this is so, then it could be expected that their career patterns will differ. However, if characteristics of current students continue to differ by type of program, then cessation of any one type of program could result in excluding from nursing the segment of the population that would have chosen that particular program.

5. Nurses who continue their education beyond the basic program have different biographical characteristics and career patterns than those who do not attain further education.

6. Loss of government assistance for graduate study may affect nurses in obtaining master's degrees.

7. National recruitment by institutions in need of nursing personnel should be geared to the recent graduates. Local recruitment should be adapted to the local nurse population, most of whom can be expected to be married women who are also mothers.

# appendix

## form letters and questionnaire for fifteen years after graduation

## LETTER ACCOMPANYING QUESTIONNAIRE

Dear Nurse Career-Pattern Study Participant:

Since you started in nursing school and at selected intervals after graduation you completed questionnaires for the Nurse Career-Pattern Study. Information obtained from these questionnaires has been extremely useful in understanding nursing labor force dynamics. Now that it is approximately fifteen years since your completion of the nursing program the final questionnaire is being sent to you. I hope that you will respond with your usual cooperativeness, complete the questionnaire, and return it in the enclosed envelope. Participants in this study have displayed a high degree of interest and return rates, usually 80% or better, have been gratifying.

All responses are important; if you are working as a nurse, if you are not working at all, if you are a student, or if you are now in a field other than nursing.

Over the years there have been some recurring questions from participants. I am taking this opportunity to try to reply to the most frequent inquiries:

1. When listing clinical field why not include anaesthesia, operating room, geriatrics, rehabilitation, office nursing, etc?

   All nursing work, that is, employment which requires licensure as a registered nurse, is coded. All of the nursing specialities are not listed simply because of space limitations. All the above mentioned specialities and others are coded and counted separately, data is available by each clinical field, please write in any specific field not listed.

2. Why do you ask questions about children, spouse, income?

   This study and others of women and nurses have shown that these variables are of paramount importance in understanding labor force behavior. Therefore, they are included.

3. Why do you ask so many questions about education since graduation from nursing school?

   It has become important to be able to ascertain what proportion of nurses continue their education. Positions in nursing administration and nursing education, which require advanced education, have frequently been the most difficult for employers to fill.

Nurses who continue their education in a major area other than nursing may either leave nursing or incorporate their non-nursing education into a non-traditional nursing role. The study is trying to determine the prevelence of such situations.

Asking questions about education does not imply any conviction on our part for or against education beyond basic nursing school.

4. When can I see the results of the study?

   Anyone who has written this request on a questionnaire has been sent a list of the study publications, and reprints as available. Ideally it would be nice if each participant could receive each publication, however, since the study includes thousands of nurses the costs are prohibitive. If you have any further questions please feel free to write directly to me, since notations on questionnaires often are not read until after the entire sample has been collected.

As has been true in the past, all of your responses are confidential and completely voluntary. The information is for statistical purposes only and will not be connected with your name. Only the staff of the study directly receiving the responses have access to individual replies.

Thank you for continued interest and help with this study.

Sincerely,

Lucille Knopf, Director
Nurse Career-pattern Study

# THE FIFTEEN-YEAR QUESTIONNAIRE

NATIONAL LEAGUE FOR NURSING
Division of Research
NURSE CAREER-PATTERN STUDY

This questionnaire is confidential. The information is for statistical purposes only and will not be connected with your name in any way.

Name: _____
(please print)

Address: _____

City & State: _____ Zip: _____

Name and address of person who would forward mail to you if you move:

_____

_____

_____

1. Are you currently licensed as an R.N.? ☐ Yes ☐ No
   If yes, give State _____ license no. _____ State _____ license no. _____
   State _____ license no. _____ State _____ license no. _____

2. Are you:
   ☐ Single ☐ Divorced
   ☐ Married ☐ Separated
   ☐ Widowed

3. Number of children: _____
   Ages of children: ___ ___ ___
   ___ ___

4. If you are married, in what year did your marriage take place? _____

   Spouse's occupation: _____ Employer: _____

   Highest number of years of school spouse completed: (check one)
   ☐ 8 or less ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ over 16

5a. Are you working as an R.N.? (check one)

   ☐ Yes, full time
   ☐ Yes, part time (1 - 16 hours per week)
   ☐ Yes, part time (17 - 32 hours per week)
   ☐ Yes, part time (33 or more hours per week)
   ☐ Not working as R.N.
   ☐ Not working but looking for work as an R.N.

b. If you are not working as an R.N., are you working in some other area or field?

   ☐ No ☐ Yes, full time ☐ Yes, part time

   If working, but not as an R.N., specify area or field _____

c. If you hold two jobs, are: _____ both, _____ one, _____ none, in nursing?

6. If you are not working as an R.N., what are your reasons for not working as an R.N.? (check all that apply, then go back and circle your primary reason)

   ☐ I have children to care for
   ☐ Other family and personal needs
   ☐ Not financially necessary
   ☐ I earn more at other work
   ☐ No longer interested in nursing
   ☐ Cannot obtain desired position
   ☐ Cannot obtain desired hours
   ☐ Transportation is difficult
   ☐ Personal health
   ☐ I am going to school
   ☐ Other (specify) _____

*Note: Items 18, 19, 21, and 24 were adjusted to reflect the basic program from which the registered nurse graduated*



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If you ARE EMPLOYED as an R.N., please answer questions 7, 8, 9, and 10 and continue with the remainder of the questionnaire. If NOT currently EMPLOYED IN NURSING, please go to question 11 and then continue with the remainder of the questionnaire.

7. Check the field in which you are now working:

☐ Medical Nursing ☐ Child Nursing ☐ Acutely ill (I.C.U.-C.C.U.-etc.)___
☐ Surgical Nursing ☐ Psychiatric Nursing ☐ Special Service (specify)_____
☐ Maternity Nursing ☐ General Nursing ☐ Other (specify)_____

8. Check the type of employer for whom you are now working:

☐ Hospital ☐ School (public or private) ☐ Private Patient (private duty)
☐ Nursing Home ☐ School of Nursing ☐ Doctor, Dentist, etc.
☐ Public Health Agency ☐ Industry ☐ Other (specify)_____

9. What type of position do you now hold?

☐ Staff Nurse ☐ Teacher ☐ Researcher
☐ Private Duty Nurse ☐ Administrator ☐ Extended Role (specify)_____
☐ Charge Nurse/Head Nurse ☐ Consultant ☐ Other (specify)_____
☐ Supervisor

10. What is your approximate monthly salary from your nursing work (before deductions)?

☐ $400 or less ☐ $701 - $800 ☐ $1101 - $1200 ☐ $1501 - $1600
☐ $401 - $500 ☐ $801 - $900 ☐ $1201 - $1300 ☐ $1601 - $1700
☐ $501 - $600 ☐ $901 - $1000 ☐ $1301 - $1400 ☐ $1701 - $1800
☐ $601 - $700 ☐ $1001 - $1100 ☐ $1401 - $1500 ☐ Over $1800

11. If you are a working mother, how do you provide care for your children during working hours? (check all that apply, then go back and circle the primary method of care)

☐ Care in the home which I pay for ☐ Day care by agency
☐ Care in another's home for a fee ☐ Children all in school
☐ Husband cares for children ☐ Children grown; care for themselves
☐ Relative cares for children ☐ Other (specify)_____

12a. What is your approximate total yearly family income (before deductions)?

☐ Under $10,000 ☐ $15,001 - $20,000 ☐ $25,001 - $30,000
☐ $10,001 - $15,000 ☐ $20,001 - $25,000 ☐ Over $30,000

b. Are you the major or primary wage earner in your family? ☐ Yes ☐ No

13. Counting full and part time work as a Registered Nurse in the 15 years since graduation, have you been employed: (check one)

☐ Less than 5 years
☐ 5 years less than 6
☐ 6 years less than 7
☐ 7 years less than 8
☐ 8 years less than 9
☐ 9 years less than 10
☐ 10 years less than 11
☐ 11 years less than 12
☐ 12 years less than 13
☐ 13 years less than 14
☐ 14 years less than 15
☐ Employed all 15 years

14. In which states have you worked as a Registered Nurse?

_____ _____ _____ _____

PLEASE CONTINUE ON PAGE 3



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15a. During the years you have worked as a Registered Nurse from graduation until the present, how many EMPLOYERS have you had? _____

b. How many POSITIONS IN NURSING have you held? _____

16a. If you have spent a year or more away from nursing work and then returned, was your adjustment to the work situation: (check one)

☐ Very easy ☐ Moderately easy ☐ Smooth ☐ Moderately difficult ☐ Very difficult

b. How many years were you away from nursing work before returning? _____

17. To what professional or health organization(s) do you belong? (check all that apply)

☐ American Nurses' Association
☐ National League for Nursing
☐ Nursing School Alumnae(i)
☐ Nursing Speciality Organization (specify) _____
☐ Health Organization (specify) _____

18a. How many times have you changed your Place of Residence since graduation from Associate Degree Program? _____

b. How many of the above moves were:
within the same County _____
within the same State but different County _____
different State _____
out or back to U.S. _____

Do the number of moves in 18a equal the number reported in 18b? If not, please adjust response or explain. _____

## EDUCATION SINCE GRADUATION FROM ASSOCIATE DEGREE PROGRAM

Please respond to all parts of question 19 – if "none" please indicate

19a. Have you attended any educational program leading to a higher degree? ☐ Yes ☐ No

b. Type of Education

| | None | Attended but did not complete | Now enrolled | Graduated | Major area | Year of degree |
|---|---|---|---|---|---|---|
| Baccalaureate nursing | ☐ | ☐ | ☐ | ☐ | ____ | ____ |
| Baccalaureate not nursing | ☐ | ☐ | ☐ | ☐ | ____ | ____ |
| Master's nursing | ☐ | ☐ | ☐ | ☐ | ____ | ____ |
| Master's not nursing | ☐ | ☐ | ☐ | ☐ | ____ | ____ |
| Certificate courses | ☐ | ☐ | ☐ | ☐ | ____ | ____ |
| _____ | ☐ | ☐ | ☐ | ☐ | ____ | ____ |
| _____ | ☐ | ☐ | ☐ | ☐ | ____ | ____ |

c. Any higher degree not included above ☐ ☐ ☐ ☐ ____ ____

If so, describe other degrees: _____

PLEASE CONTINUE ON PAGE 4



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20. During the past year only, have you attended any courses in nursing not listed in question 19? (other than those given on the job) ☐ Yes ☐ No

If yes, number of courses: _____

21. How did you finance the education described in 19 and 20? (check all that apply)

| | Baccalaureate education | Master's and higher degree | Certificate and other courses |
|---|---|---|---|
| Scholarship (Government) | ☐ | ☐ | ☐ |
| Fellowship or traineeship (Government Funds) | ☐ | ☐ | ☐ |
| Nurse Training Act funds | ☐ | ☐ | ☐ |
| Other type of Government loan(s) | ☐ | ☐ | ☐ |
| Veterans' or Armed Forces benefits | ☐ | ☐ | ☐ |
| Scholarship (non-Government) | ☐ | ☐ | ☐ |
| Loan(s) (personal, bank, etc.) | ☐ | ☐ | ☐ |
| Your own earnings | ☐ | ☐ | ☐ |
| Your own savings | ☐ | ☐ | ☐ |
| Spouse, family, relative(s) financed | ☐ | ☐ | ☐ |
| Paid by employer | ☐ | ☐ | ☐ |
| No charge | ☐ | ☐ | ☐ |
| Other (specify) _____ | ☐ | ☐ | ☐ |

22. When did you last look for work as an R.N.? _____ (month) _____ (year)

At the above time, in general, was employment: (check one)

☐ Easy to find ☐ Very difficult to find
☐ Somewhat difficult to find ☐ Almost nonexistent

At the above time, was the job you desired: (check one)

☐ Easy to find ☐ Very difficult to find
☐ Somewhat difficult to find ☐ Almost nonexistent

If the job you desired was (is) difficult to find, is this because: (check one)

☐ Cannot obtain desired hours ☐ Transportation difficult ☐ Cannot obtain desired clinical area
☐ Cannot obtain desired salary ☐ Employers prefer P.N.s
☐ Other (specify) _____

23. Has your work in nursing met your expectations in terms of:

Personal satisfaction? ☐ Yes ☐ No
Salary? ☐ Yes ☐ No OR ☐ I cannot answer these questions because I have never worked as an R.N.
Working conditions? ☐ Yes ☐ No

24. If you were starting your education again, would you choose nursing? ☐ Yes ☐ No

Would you choose the Associate Degree program? ☐ Yes ☐ No

This space is provided for any other comments you care to share with us:

_____

_____

_____

8/24/79



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## THANK-YOU LETTER

Thank you for returning the Nurse Career-Pattern Study questionnaire for fifteen years after graduation. Because of your consistent cooperation with the study we have been able to gather meaningful data and enrich the understanding of nurses and their careers.

For your information, enclosed with this letter is a short summary of the data from ten years after graduation and a fact sheet with list of study publications.

Your help has been appreciated.

Sincerely,

Lucille Knopf, Director
Nurse Career-Pattern Study

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